

# 'Sustainable Adamawa'

## Development Report - Final

December 2007



## The Government of Adamawa State, Nigeria commissioned Max Lock Consultancy Nigeria Ltd. to research, write and produce the 'Sustainable Adamawa' Development Report.

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We would also like to thank His Excellency Bala Ngilari the Deputy Governor, all the Honourable Commissioners and their Permanent Secretaries and Chairmen of the Local Government Areas and their staffs, the Secretary to the State Government, Chief John Manasa and the Chief of General Staff, Alh. Bello M. Turkur for their active cooperation in supplying information and ensuring the accommodation and transport for our work was made as easy as possible in difficult circumstances.

Our special thanks for advice and understanding throughout many discussions go to Alh Muhammed Ajuji, Alh Ibrahim Adama and Alh Abubakar Usman and to the Schedule Officer appointed to us throughout the work, Mr Sudani V. Manga.

I would like to thank the Team who participated in and contributed to the 'Sustainable Adamawa' Development Report in one way or another. As a Team we are in particular indebted to the many officials and others in Adamawa State who helped us by contributing their time and knowledge.

Dr. Mike Theis  
December 2007

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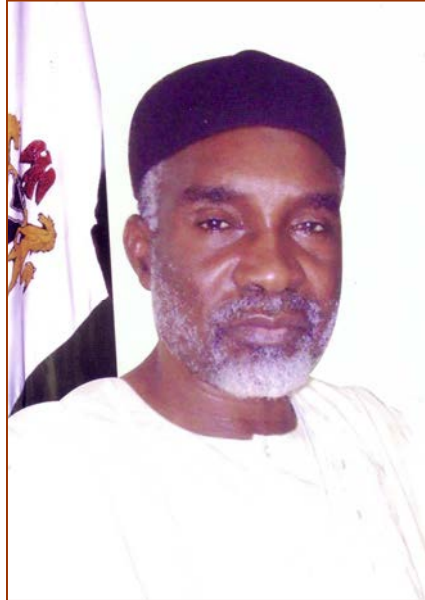
All photographs by: Dr. Mike Theis, Sam Adenekan and Simon Gusah

Maps by: Dominic Gusah (MDZmultimedia.com)

Front cover photo: The River Benue valley from the terrace of Government House VIP Guest House August 2007



**FOREWORD**  
**from His Excellency The Executive Governor**  
**Adamawa State**



Murtala H. Nyako GCON

This Administration came into office with very specific objectives of taking Adamawa State to greater heights. One of such objectives is to change the State's prevailing poor urban planning to one with well planned structures which are environmentally friendly. Consequently, we immediately commissioned Max Lock Consultancy Limited to undertake the Survey and Planning of the development of all our urban centres. The parent firm, Max Lock Centre Group, undertook a similar assignment on Greater Yola and Mubi for the defunct Northern Eastern State Government between 1973 – 1976.

This report on the Sustainable Physical Development of urban centres in Adamawa State now being submitted by the Consultant is timely and important. It captures a wide-ranging, but concise snapshot of the State today, identifying a plausible framework for the sustainable physical development of our urban centres.

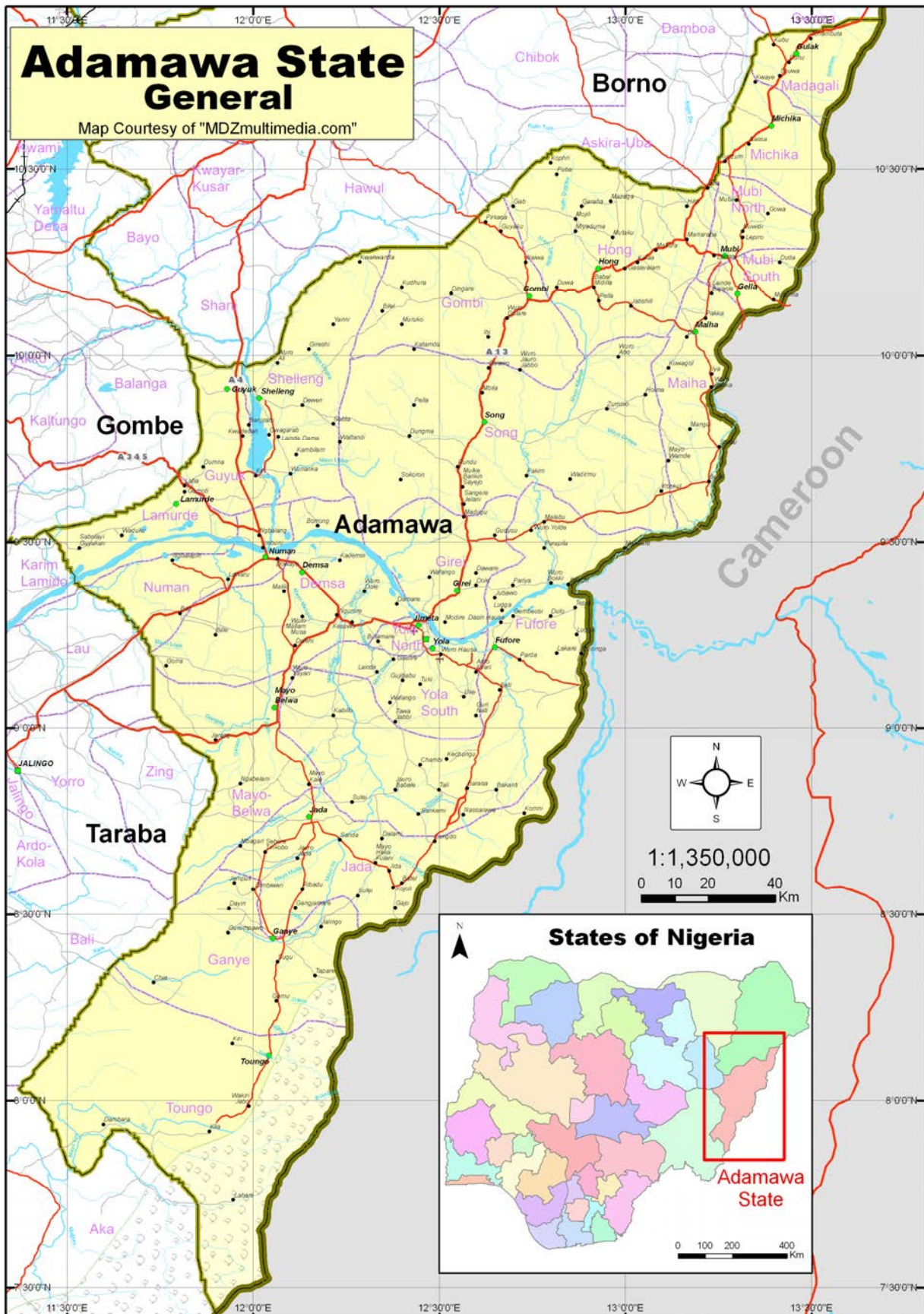
This document is most valuable and will go a long way in facilitating the achievement of the Sustainable Development of Adamawa State and the attainment of Millennium Development Goals by 2015.

I wish to place on record my appreciation to all Ministries, State Parastatals and Agencies for their cooperation during the course of data collection by the Consultants. To Dr Michael Theis and his team, I say "well done" for their good work in putting together the report.

Thank you all and God bless!

A handwritten signature in black ink, which appears to read "Murtala H. Nyako". The signature is written in a cursive style.

October, 2007



*This map of Adamawa State has been specially produced for the Sustainable Adamawa Development Report. It can be separately reproduced and printed for use as a wall map in Government Offices and Educational institutions. It would also form the basis for displaying all data and programmes that will be developed from the Geographical Data Infrastructure (GDI) system proposed in this report.*

## Preface to Final Report

The 'Sustainable Adamawa' Development Report was discussed at a consultative forum on 27<sup>th</sup> November 2007, which was Chaired by the State Governor H.E. Murtala Nyako, and included members of the State Exco, Local Government Chairs and heads of Parastatals.

Following a presentation of the report by Dr. Mike Theis and input by the Governor, questions, comments and round-table discussions took place. Based on these discussions a number of clarifications have been made in the report's text, as well as corrections and additions, which ensure that the report meets the original brief: to provide a 'snapshot' of Adamawa State for effective development planning.

A number of key issues were discussed, which have been highlighted by the report and will need further study and development in any second stage. Some of the key issues discussed at the forum include;

- The role of GDI and use of satellite imagery in land use and cadastral mapping, for better urban planning, property valuation and access to credit for development.
- A strategy for realizing the vision of a 'Greater Yola', which will guide the city's growth even beyond its boundaries with Girei, Fufore and Demsa.
- Environmental protection and the sustainable management of natural resources.
- Stimulating and managing the growth of Local Governments through joint-planning between the State and Local tiers of Government.
- The challenge of Internally Generated Revenue (IGR), increasing collection, improving accountability and better targeting of spending – all based on use of accurate data.
- The need for training and capacity building, as an on-going and embedded element, in various aspects of urban management and planning.
- The role of the Planning Commission as the hub for the collection, processing and management of economic data, as well as input-output monitoring for effective Monitoring and Evaluation.

Included in this Final Report (Appendix F) is a Proposal, Action Plan and Scope of Services for Stage 2 of the report, submitted at the request of the Adamawa State Government. It outlines the principles on which we recommend SADR be taken forward; fieldwork, data analysis, community participation, training and plan making at strategic and action area levels. All these will be achieved through the setting up of a State-wide Geo-spatial Data Infrastructure (GDI), details of which are also set out in the SADR Stage 2 Proposal.

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# Chapter 1 Executive Summary and Recommendations



## Chapter 1 - Executive Summary and Recommendations

### 1.1 Introduction: The Purpose and Objectives of SADR

#### Purpose

The brief for the 'Sustainable Adamawa' Development Report (SADR) is to provide an overview of the current physical and economic status of Adamawa State, and a concise baseline for the new Administration to undertake its vision for the development of the State. This 'snapshot' is intended to enable the Government to 'plan the planning' of a viable and sustainable development model, suggest entry points for interventions and flag up pertinent constraints and opportunities, which could potentially 'make or break' the achievement of the Administration's 13-Point Programme (see Annex I for details of the 13-Point Programme and Project Brief).

#### Objectives

Two key objectives are; firstly, to place Adamawa State in its wider National development-planning context and secondly, to relate investment in the Local Governments to State and National goals. By providing a 'joined up' view of Governance, that flows back and forth between the Federal, State and Local Government levels, a workable framework for planning, implementation, monitoring and evaluation can be put in place, for the sustainable development of Adamawa State.

#### Outputs

SADR includes analyses of the human and physical resources of State Agencies (Ministries and Parastatals) and Local Governments. This is the first step in focusing on their current human and ICT resource capacity and 'fitness for purpose' in project planning, implementation, monitoring and evaluation, with respect to the achievement of the Millennium Development Goals (MDGs).

Updated maps of the State's natural and human resources, an outline implementation strategy, investment priorities and delivery framework, support the main report narrative.

Particular attention has been paid to Greater Yola, as the urban engine that drives the State's economy.

#### Project Approach

In order to capture as accurate a picture of Adamawa State within the limited time and resources available for the report, a number of data and information gathering techniques were employed. These included;

**Meetings and Personal Interviews:** with senior political members of the Government and civil service management of both the State and Local Governments. These personal contacts were essential for getting informal, 'off-the-record' impressions and insights, as well confirming and cross-checking more formally collected data.

**Self-fill Questionnaire Surveys:** distributed to all (17 No.) State Government Ministries, selected State Parastatals and all (21 No.) Local Government Authorities. These surveys were useful both for the information provided and for the gaps that were left. The answers to the open-ended questions were also useful as they provided insight into the way these agencies work and operate in practice, as opposed to their formal, codified regulations.

**Field Visits:** undertaken to all LGA's, to visually assess the headquarters towns under a number of headings, including: Commercial Activity and Main Market, Administration, Infrastructure, Water Supply, Waste Management, Ecological Threats, Primary Healthcare and Primary Schools. The field visits, together with personal interviews with key officials, provided a backdrop against which the Local Government questionnaires could be evaluated.

**Documentary Research:** Briefing Papers, Budgets and Workplans, Reports, Maps and other documentary materials from within and beyond Adamawa State were researched for relevant information, data and in order to cross-check local sources.



## 1.2 Summary of Main Findings

- i. Nigeria's 36 States (and Abuja FCT) and 774 Local Government Areas are largely financed by Statutory Allocations from the Federation Account, which derives principally from sales of crude oil. Strong, sustainable 'grassroots reform', which impacts on the everyday life of ordinary Nigerians, is yet to happen and the process of policy and institutional reform needs to deepen and mature. Unless and until this process of maturation happens, the Nigerian economy is likely to remain a paradox – a potentially 'rich' country, with a lot of poor people.
- ii. Internally Generated Revenue (IGR) and alternative sources of finance raised, held and spent in the State are essential to move the State and Local Governments away from their present total dependence on statutory allocations. Intervention is required to stimulate local commercial activity. Most ordinary people in the State live in the informal economy, neither deriving benefits (in the form of public goods and services) nor contributing (through taxes and revenue collection).
- iii. In the medium to longer term there is need for Adamawa State to attract inward investment both locally and internationally. The State will need to explore with the Federal Government and perhaps international intervention in order to meet the challenges of basic infrastructure such as the roads, power, drainage and water supply. However, much can also be achieved and the State set on the path to achieving MDGs by better spending existing finance and boosting IGR.
- iv. The economy of Adamawa state is split between rural agricultural activities and an urban economy, which is largely dependent on government employment and trading activities servicing the white collar sector, as well as on livestock and other wholesale and retail agricultural markets. A coordinated and strategic approach is needed to marketing the products and services of the State as a whole, encompassing both formal and informal economic activities. It is important to preserve precious resources such as agricultural land and at the same time building and maintaining a

world-class urban infrastructure. Informal trading outside of the formally recognised



market areas should be valued as a source of productive employment and cheap services.

- v. Any proposal for an EPZ in Adamawa to attract foreign (and domestic) investment would need to look beyond the conventional model. The precise setting and nature of an EPZ in Adamawa needs more study and research, however a suitable EPZ model for a 'Sustainable Adamawa' might focus on agro-industrial processing, based on appropriate and sustainable technology, broad-based/diverse not monolithic investment, a range of sustainable products for a range of overseas and domestic markets and data and research-led development.
- vi. Investment in clusters of closely inter-related agri-industry factories can benefit from synergies and a critical mass of economic activity. Such clusters need to be located close both to major transport infrastructure (federal roads and the airport) and to the most productive agricultural zones in the alluvial plains.
- vii. Funding is available through the Small and Medium Scale Enterprise Equity Investment Scheme (SMEEIS), set aside in Central Bank from profits of commercial banks nationwide. Most enterprises are unable to access this funding either due to ignorance that it is available or lack of capacity to apply for it. **There is not yet not a single SMEEIS project in Adamawa State.** The State Government should take up the task of ensuring that as many local enterprises that qualify for such funding are enabled to do so.
- viii. Although exploration for mineral deposits in northern Nigeria began several decades

ago, there is yet to be a comprehensive and detailed report on the mineral occurrences in this part of the region. A comprehensive geologic map and an acceptable final report on the mineral occurrence in the state can be produced, which will also put to rest the many speculations on this matter.

ix. Natural resources, in an economy where over 75% of the population live directly off the land, must be protected and developed sustainably. Land must be protected both from urban sprawl and environmental degradation due to erosion, and other natural and climatic threats. Adamawa is one of the greatest producers of cattle population in the country. Forest reserves have become the carriers of dense network of cattle routes in the state. This reserve must be protected from the growing population involved in cutting down the trees for firewood. Forests and arable lands need to be preserved for agriculture, whilst less viable land is used for housing and urban development. The map of various arable crop production in the state should be reviewed following field work and surveys with a view to seeing how acceptable and sustainable means of increasing yield and production can be achieved.

x. Existing records on surface water and drainage should be researched, evaluated and programmes determined for bringing them up to date and keeping them that way. Groundwater and borehole field works and logs need to be collated and incorporated into a coordinated and constantly up dated and monitored data base to record output, quality and replenishment rates. Water from the alluvial aquifer is best suited to 'single farmer' irrigation using portable petrol driven 5mm. pumps in shallow boreholes (often washbores) and typically, a suitable alluvium can support its own area of cultivation between recharge periods.

xi. Adamawa state needs to strengthen its administrative governance structure, reduce duplication and over-fragmentation, in order to draw the various ministries and community/traditional structures into a coherent working whole and enable 'grassroots reform'. The lack of current information and data is arguably the main challenge to achieve this.

Information and communications technology can be employed with appropriate basic survey methods to address this gap. If the State is to develop sustainably, government must develop a forward-looking attitude to ICT and the computerisation of administrative and financial operations. Hence it is recommended adding access to reliable communications and IT along with other suggestions to the 'Current Development Challenges' of the NEEDS 2 consultation.

xii. By providing a 'joined up' view of Governance, that flows back and forth between the Federal, State and Local Government levels, a workable framework for planning, implementation, monitoring and evaluation can be put in place, which will lead to the sustainable development of Adamawa State.

xiii. Only by viewing the State and Local Government as partners with a common objective, that of transforming Adamawa State, can sustainable development be achieved. The State and Local Government Joint Account (JAC) is an opportunity for such 'joined up government'. 75% of Local Government respondents identified it as the aspect of policy in most need of review. The JAC is in fact an opportunity for coordinated development planning between the State and Local Governments, but it will need to be reviewed in terms of its operation and management. It must be strengthened as a policy forum and its operation and management more clearly articulated, with supporting legislation where necessary.

xiv. A Commissioning Framework (CF) provides an agreed framework for development within which public goods and services will be strategically planned, commissioned and procured. Agreement is needed across the board at both State and Local Government level about how, what and why public goods and services are procured, as a first step towards managing effective delivery of JAC policy to promote the sustainable development of the State.

xv. An economic development model (PPPP) is proposed, which involves communities and

civil society as well as the business and government sectors, so that policy is seen to come from within, rather than being imposed from above. Max Lock have always believed that by involving communities, as end-users, in the process of policy and project identification, prioritization, planning, implementation and M&E, success and sustainable outcome are more likely to be achieved.

xvi. A Geo-Spatial Data Infrastructure (GDI) would facilitate the practical development of a PPPP model, based on which an effective Commissioning Framework (CF) can be created to articulate and implement a sustainable development plan for Adamawa State. The hardware of a GDI (i.e. computer hard and software, internet, training, suitable accommodation, power back up) will provide the State with direct and indirect benefits.

xvii. Monitoring and Evaluation (M&E) is an essential component of policy formulation and implementation; providing vital feedback and input for adjustment and review, value-for-money auditing, and impact assessment. Once an appropriate planning and monitoring and evaluation framework has been agreed, implementing a simple, practicable and appropriate geo-spatial planning and monitoring system would be relatively straight-forward.

xviii. Areas of opportunity for development studies around Greater Yola are identified. As the urban engine that drives the State's economy, it is important that the development of the linked urban centres of Yola and Jimeta and the surrounding region are viewed as a whole. We set out a series of recommendations that relate to upgrading physical infrastructure, making the most of resources particularly land and maintaining the balance of development. We have also identified where baseline surveys are required to establish the baseline information for capturing development needs and optimize the use of natural and physical resources.

### 1.3 What is Sustainable Development?

The concept of sustainability was embedded in the work of Sir Patrick Geddes (1854 -1932) and his disciples of whom Max Lock was an active proponent. It has developed over the past fifty years since the publication of 'Limits to Growth'<sup>1</sup> in 1972, which stimulated much thought and argument over human economic activity and its long-term effect on planet earth.

Over the ensuing fifty years much argument and many international conferences and declarations have refined the inevitable conflicts between the proponents of global economic growth (globalisation) and conservation (sustainability), and a consensus on agreed definitions of what sustainable development have been reached (see Appendix E). The current and most considered concept of Sustainable Development is often represented as in the diagram below.

The diagram suggests that actions must be focused in the overlap between all three areas of interest to achieve Sustainable Development. Each of the three defined areas is represented by interest groups, and partnership between stakeholders is necessary to overcome the often competing areas of interest.

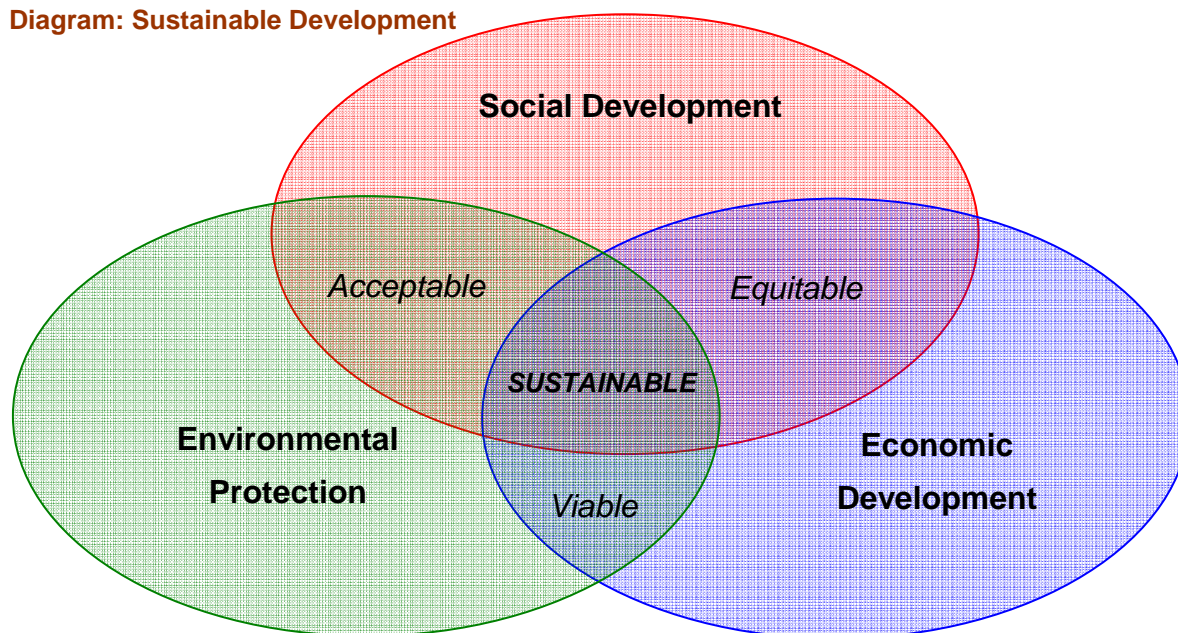
Environmental actions need to be socially acceptable to be sustainable, and economically sustainable to be viable. Economic actions need to be balanced against social aims to be equitable. These concerns operate both at the local and global level, and a global balance between developed and developing worlds is necessary.

Human activities at the local level often have impacts at a wider scale, particularly where they involve common resources such as the ocean and the atmosphere. One of the main issues of concern at the Rio Earth Summit (1992) was the growing impact of human activity on the Earth's climate, through the effects of carbon and other greenhouse gasses. A Convention on Climate Change led to the creation of the Kyoto Protocol (1997),

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<sup>1</sup> Club of Rome 1972.

**Diagram: Sustainable Development**



Source: Adapted from [http://www.unngocsd.org/CSD\\_Definitions%20SD.htm](http://www.unngocsd.org/CSD_Definitions%20SD.htm) and [http://en.wikipedia.org/wiki/Sustainable\\_development](http://en.wikipedia.org/wiki/Sustainable_development)

which has been ratified by 169 countries and government entities. It was not signed by the USA or Australia, makes no requirement for developing countries, including those responsible for a growing proportion of global carbon emissions, such as China and India, and expires in 2012.

A series of recent reports (2007) by the Intergovernmental Panel on Climate Change (IPCC), by many of the world's leading environmental experts has convinced governments that global warming is happening, and human activity is the cause, with a likelihood of 90%. Both India and China now agree that mandatory targets for carbon emissions are necessary and any future successor to the Kyoto Agreement will need to involve all countries – developed and developing – if catastrophic impacts of climate change are to be avoided. In Sub-Saharan Africa, water shortages and droughts are likely to become increasingly common. More erratic weather patterns are likely to lead to increased frequency and intensity of weather-related hazards – such as the storms and floods that hit many parts of the world, including West Africa, during 2007.

Programmes and projects have been initiated in Adamawa over the past 30 years many of which have taken into account the excellent past studies of natural resource potential. There has been a long tradition of such academic studies in the North East of Nigeria, and the neighbouring sub Sahel areas in Niger, Chad and Cameroon, and this tradition needs to be drawn on and continued. However, much development has been taking place in a piecemeal fashion with varying degrees of long-term success. Our 'snapshot' presented in this report suggests that there is now a unique opportunity for the State Government to establish an accurate and constantly updated set of maps, data and trained personnel to create the backbone for a framework on which 'sustainable development' must be built.

### Sustainable Adamawa

Nigeria, as a whole, has suffered from economic stagnation over decades and only in recent years has the GDP per capita achieved again the level it reached in 1960. With the return to democracy, and the oil 'bonanza' of the last few years, economic growth has picked up again and overseas debt has been

reduced. However, the country has to overcome the burden of the intervening years, including the lack of investment in infrastructure, and lack of support for and maintenance of what investment there has been in the intervening period. Since 1960 Nigeria's population has tripled in size, with an increasing proportion concentrated in urban areas, and a huge growth in the number of poor people and an ever-larger human development 'deficit'.

### 1.4 The Three Natural Zones of Adamawa

Adamawa State is naturally divided into three zones of human settlement, whose economies are basically dependant upon the land and its productivity. The boundaries between these zones are not hard and fast, but tend to merge in their differing intrinsic values from one to the other. Their fundamental differences are determined by the underlying geology, climate and soils of each zone. The maps and text given in Part 5 Natural Resources make this clear.

Additionally, there are the sparsely settled and largely no to low productivity soils in the range of high ground along the Nigerian/Cameroon border. There could be some possibility of economic mineral extraction here and in the small geologically suitable areas dispersed throughout the state.

The north zone is drier with low productivity soils that need strict conservation measures for improved agricultural, livestock and forestry development. There could be some possibility of economic mineral extraction

The central zone is based on the banks of the perennial Benue River with its high productive soils as well as potential for small scale individual farmer irrigation and fishery. There is little possibility of economic mineral extraction.

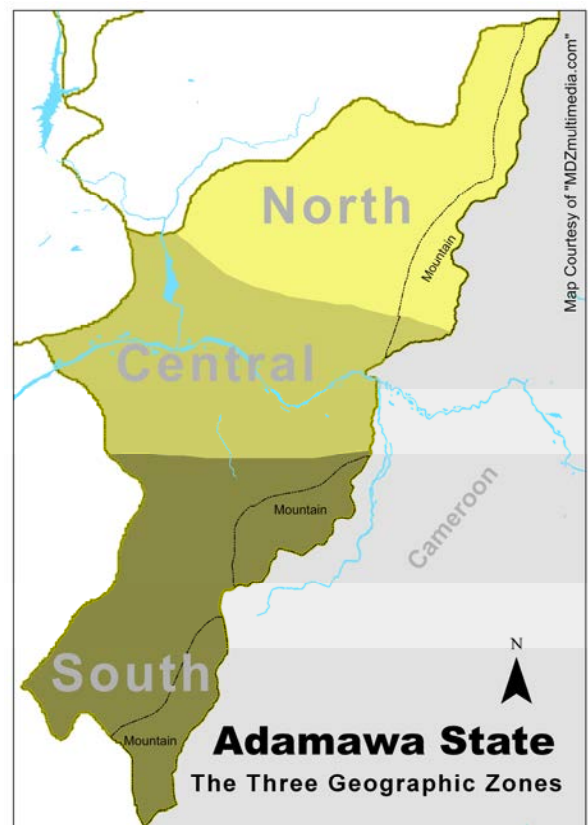
The south zone is largely made up of soils of medium productivity with a wet season up to six weeks longer and an annual rainfall in the southern half of over twice that of the northern zone. Conservation measures would be essential for improved agricultural, livestock and forestry with potential for small scale

individual farmer irrigation based on rivers with perennial flows. There could be some possibility of economic mineral extraction.

Each zone has particular limits and advantages, which must be respected in any overall state planning and investment.

The effects of climate change could even be causing the boundaries to move either north or south although the underlying geology does not change. The productivity of the soils generated by that basic geology can, of course be affected by a significant variation in, for instance, length of time, intensity and quantity of annual rainfall.

There have been detailed and extensive Natural Resources studies carried out in the past, in particular, the work by the Dutch NEDECO team and the Land Resources Division of the UK ODA. This data needs to be made freely available to local professionals as a part of the proposed Geospatial Data Infrastructure (GDI) programme so that it can be constantly up-dated and improved as an integrated data-base within a state GDI for sound planning and investment.



## 1.5 The Challenges

A predominantly rural Adamawa State shares the challenges of the rest of Nigeria, with few of the benefits of any development that has occurred. In terms of sustainable development, the key areas are human and social development, and the economic development necessary to pay for them. Nevertheless, there are also important environmental issues to be confronted. Natural resources need to be conserved. Sustainable practices in agriculture are critical to conserve the potential of areas of poor soil suffering from erosion. There needs to be better management of the limited areas of alluvial land to balance the needs of livestock and crop production. Urban planning is necessary to prevent the loss of good agricultural land to low density urban sprawl. Land use planning needs to optimize the relationship between farmland and potential related processing-based manufacturing and other urban land uses in Greater Yola, and in and around other major towns.

Adamawa will suffer increasingly from the effects of global warming, and adaptation will pose additional challenges, in particular for water management. To achieve the Millennium Development Goals, Adamawa badly needs investment to make the most of its natural and human assets but this new development should be sustainable in itself, avoiding exacerbating the impacts of human activity on the global climate. Many developing countries are benefiting from adopting the latest technology in areas such as information and communication technology by leap-frogging the intervening stages of development (e.g. mobile telephony vs conventional land lines). In the same way, investment in appropriate and sustainable manufacturing and processing plant could put Adamawa 'ahead of the game'.

Increasingly foreign investors and shareholders require that any new investment in any part of the world is sustainable. More than three-quarters of the world's largest companies now regularly monitor and report on their climatic impact (Financial Times 2007). Governments that can show how they can support sustainable investment should be able to benefit. Global retailing giants such as Wal-Mart

and Tesco are monitoring the carbon footprints of suppliers. Dell Computer, News Corporation, HSBC bank and others have pledged to become 'carbon neutral' by offsetting the negative impacts of their activities on the climate (Financial Times 2007).

New development in Adamawa should be able to benefit from carbon offsetting schemes that enable polluters in the rich world to help pay for their emissions by investing in low carbon emission development in the developing world. Any future global carbon emission target scheme that includes countries in the developing world, is likely to allow such countries to balance the needs of development against increased levels of carbon emissions (as at present), whilst putting caps on future levels. Financial benefits will accrue to any developing country that invests heavily in new sustainable development, as it will be in a position to trade its surplus carbon credits.

Finally, the market for sustainably produced agricultural and forestry products in the rich world is growing at a dramatic rate. The fast-food chain, McDonalds, for example, will sell coffee exclusively from accredited sustainable producers (The Guardian 2007a). 'Fairtrade' schemes have been implemented for food products that ensure that local producers do not lose out to middle men and the big multinational companies. The UK food giant, Sainsbury's will convert its entire range of own-brand tea and ground coffee to Fairtrade over the next three years (The Guardian 2007b). With parallel investment in improvements to infrastructure and marketing there are growing opportunities for Adamawa to exploit new, high value markets for sustainably-produced exports abroad, whilst achieving both markets and sustainable livelihoods at home.

## 1.6 Recommended Priorities in Relation to Realities of Implementation

Adamawa State has very limited regular income in relations to its development challenges and the attainment of MDGs. This income is mostly in the form of monthly Statutory Allocations, of between N2Bn to N3Bn, much of which is expended on salaries

and recurrent expenditure. Internally generated revenue is also low at both the State and Local Governments, meaning that appropriately targeting and prioritizing the limited funding available for investment and capital expenditure is essential.

### Basis for Prioritization of Projects

Responses to the questionnaires on the issue of project prioritization (see Chapter 3) indicated that policy directives, urgency or public demand, by and large, determine priorities. The impression created is that project prioritization is fairly ad-hoc and short-term. In order for the relatively huge investments in infrastructure, education and health to be targeted properly, there is a need for a rational basis for prioritization of public spending, which might include the following considerations;

#### Balancing short and medium to long-term objectives

An appropriate balance and efficient mix must be sought between short-term 'quick wins', such as potable water provision, access roads and electricity provision, and investments which do not visibly bear fruit immediately, such drainage and improved public health, education and Civil Service reform. In a democratic dispensation there may be the tendency to focus on projects with an immediate impact, over less fashionable 'foundation-laying' investments.

#### Grassroots Policy Reform

Much progress has been made in recent years in terms of macro-economic reform, however the life of the average person has remained unchanged throughout most of Nigeria. If reforms and investments in infrastructure are to be sustainable there is the need to drive the reform process to the grassroots, by ensuring policy initiatives are pursued through to their logical conclusion – impacting at the local level. Projects should be prioritized based on their grassroots impact. This will give the reform process the necessary buy-in from ordinary people, which is a key factor for sustainability.

#### MDGs – 'Women and Children First'

Economic planning at both the National and State Government levels are predicated on the attainment of Millennium Development Goals (MDGs) by 2015. The goals lean very heavily towards empowering those that currently bear the brunt of poverty globally (and especially in Africa) – women and children. If Adamawa State Government seeks to attain MDGs then it will need to prioritize these groups in its public and project expenditure in a similar fashion. Projects that have the most measurable impact on women and children should therefore take precedence.



#### Economic Incentives

As a less industrialized region, public sector spending drives most economic activity in Adamawa State. It has been widely noted that there is a need to boost internally generated revenue and diversify local economies. Given the fore-going and that infrastructure investment is one of the largest expenditure items, projects must be prioritized based on their economic impact and potential for stimulating growth. Infrastructure investments, whilst fulfilling social and political criteria, must also be weighed in terms of their economic and income stimulating potential.

## 1.7 SADR Policy Statement on Implementation

### Background

#### National Planning Policy Context

National Planning in Nigeria is articulated in the National Economic Empowerment and Development Strategy 2 (NEEDS 2), which is a medium term framework (2007 to 2011) and builds on the foundation of NEEDS (2003 to 2007). NEEDS 2 is centred on increasing production for poverty eradication, economic growth and wealth-creation, with the ultimate aim of achieving; 30% poverty reduction by 2011, the UN MDGs by 2015 and Nigeria becoming a 'Top 20' nation globally by the year 2020 ('Vision 2020').

NEEDS 2 comprises a national economic planning strategy, adopting a sectoral approach, with an implementation and monitoring and evaluation framework towards the achievement of the above goals. The strategy is the basis for national planning and budgeting and is directly linked to the tri-annual Medium Term Expenditure Framework (MTEF) adopted by the Federal Government.

#### Adamawa State Policy Context

Adamawa State, like all 36 States of the Federation, has a State Economic Empowerment and Development Strategy (SEEDS), which derives from the national strategy and is intended to operate in a similar manner at the State level.

The State Government is the linchpin in the process of ensuring that national planning priorities and macro-economic policy reach the local and community level in an appropriate and sustainable manner. Adamawa State and Local Governments operate a Joint Account (JAC) through which allocations from the Federal Government are disbursed for the delivery of public goods and services locally.

### Achieving 'Sustainable Adamawa'

#### Objective and Rationale: Sustainable Livelihoods for a Sustainable Adamawa

A 'Sustainable Adamawa' State will only have been attained by the achievement of 'Sustainable Livelihoods' by local communities and people. Until a substantial proportion of people have been freed from the vulnerability that poverty imposes, it is impossible to speak of meaningful or sustainable development having been achieved. Adamawa State 'development' must be viewed as all citizens being enabled to live productive lives, with dignity and hope and free from extreme poverty.

The Sustainable Livelihoods conceptual framework is built around five identified asset bases, which individuals and communities need in order to overcome the 'vulnerability context' brought about by poverty. This framework (comprising Physical Capital, Financial Capital, Human Capital, Natural Capital and Social Capital) provides a useful analytical paradigm that is used in this Policy Statement. (See Chapter 3 for detailed discussion of Sustainable Livelihoods).

#### Measuring Progress: Millennium Development Goals, Targets and Indicators

In implementing SADR there will be a need for a rational and measurable basis for decision-making and Monitoring and Evaluation. It is suggested that the Millennium Development Goals be adopted (and where necessary adapted) to provide a basis for planning and measuring progress towards the attainment of 'Sustainable Adamawa'.

The UN MDGs are internationally agreed goals, which Nigeria is a signatory to and whose attainment is a key aspect of the national planning framework, NEEDS 2. The Adamawa State Government also sees the attainment of MDGs as an important part of its programme.

There are 8 Headline Goals, 18 Targets and 48 Indicators, which provide the basis globally for assessing progress towards the achievement of MDGs. These Goals, Targets and Indicators may be adopted for use by Adamawa State Government to work towards the achievement of MDGs. Where necessary some adjustment may be required, as the indicators are set for country level application. Some adaptation and the use of proxies may therefore be required, so that they can be used at a regional (i.e. State Government) and sub-regional (Local Government) level.



## Implementation 1: A Framework

### Investing in Physical Capital

Basic infrastructure in Adamawa State (in particular roads, power, drainage and water supply) is desperately in need of upgrading, maintenance and expansion. The main transport spines that run North-South (from Borno to Calabar States – route 90) and East-West (from Yola to Bauchi – route 85) are Federal Trunk Routes and cross at Numan over the Numan Benue bridge. The latter is in urgent need of investment in upgrading and surfacing. The main north-south route through the centre of the State from Borno State, through Gulak in Madagali LG to Yola, then on to Toungo and the various spurs off of it to Damboa, Mubi, Biu, Sorau, Fufore and Lankoviri are the essential main roads of the State and are also classified Federal roads. All are in need of upgrading and investment to serve their purpose. Much more is needed.

The State will need to explore with the Federal Government and perhaps international intervention in order to meet the challenges of basic infrastructure such as the roads, power, drainage and water supply.

### Investing in Financial Capital

Intervention is required to stimulate local commercial activity and to boost Internally Generated Revenue (IGR) at both the State and Local Government levels. Most ordinary people in the State live in the informal economy, neither deriving benefits (in the form of public goods and services) nor contributing (through taxes and revenue collection).

Funding is available through the Small and Medium Scale Enterprise Equity Investment Scheme (SMEEIS), set aside in Central Bank from profits of commercial banks nationwide. Most enterprises are unable to access this funding either due to ignorance that it is available or lack of capacity to apply for it. The fund has passed the N37Bn mark, and as at December 2006 there was over N17Bn invested in 248 projects nationwide – yet not a single project in Adamawa State (SMEEIS Performance Report 2006). The State Government should take up the task of ensuring that as many local enterprises that qualify for SMEEIS funding are enabled to do so.

### Investing in Human Capital

A steady but incremental approach is necessary to ensure all citizens have access to health and education opportunities. This is a long-term investment, but one that is essential to the achievement of MDGs, as they are centred principally on the attainment of universal basic education and healthcare.

Despite the cost challenges it should be possible for the State Government to set minimum standards across the State. For example, it is possible to eliminate the situation where thousands of children in the State are being taught under shades and trees because their school has insufficient or no classrooms.

### Investing in Natural Capital

Natural resources, in an economy where over 75% of the population live directly off the land, must be protected and developed sustainably. Land must be protected both from urban sprawl and environmental degradation due to erosion, and other natural and climatic threats. Forests and arable lands need to be preserved for agriculture, whilst less viable land is used for housing and urban development.

### Investing in Social Capital

Adamawa State is ethnically and religiously diverse and enjoys a high degree of stability and peace. The traditional institutions and cultural heritage of the people serves the State well in maintaining an atmosphere where people can work together across ethnic and social divides to progress.

Community involvement in policy and decision-making must be encouraged, in order for the State to derive the maximum benefit from its rich heritage and ethnic diversity. Adoption of a Public, Private, People Partnership (PPPP) model, as laid out in Chapter 3, will achieve this.

## Implementation 2: Entry Points

### Budget Planning

Sustainable Development is not achievable without consistent budget planning and fiscal discipline. It is therefore suggested that Adamawa State adopts a similar Medium-Term Expenditure Framework (MTEF) as is being implemented by the Federal Government. As a three-year plan, subject to annual budget review and re-profiling, an MTEF for the State would allow more consistent planning and implementation of projects and programmes.

Strategic budget planning supported by fiscal discipline and monitoring and review are essential entry points to the successful implementation of SADR.

### State and Local Government Joint Account (JAC)

The JAC must be strengthened as a policy forum and its operation and management more clearly articulated, with supporting legislation where necessary. It is invaluable as a platform for coordinated development planning between the State and Local Governments. Recently introduced Workplans by the LGAs, submitted to the Ministry for Local Government and Chieftaincy affairs are a good example of how State policy can be transferred to the local level.

Only by viewing the State and Local Government as partners with a common objective, that of transforming Adamawa State, can sustainable development be achieved. The JAC is an opportunity for such 'joined up government'.

### Data Management Framework

Meaningful planning is all information and data-driven. Data and information are needed at all levels of Government (and even in the public domain), which is SMART (Specific, Measurable, Achievable, Relevant and Time-bound). Adamawa State currently lacks an effective information infrastructure, ICT literacy and use of computers is low, so the storage and retrieval of information is cumbersome.

Without an effective data management framework it is not practicable to collect and analyse data on income and expenditure, outcomes of interventions, monitor and evaluate projects and plan service delivery.

## Implementation 3: Managing Delivery

### Public Procurement Strategy

Agreement is needed across the board at both State and Local Government level about how, what and why public goods and services are procured, as a first step towards managing effective delivery.

Chapter 3 (Governance) suggests a format for a 'Commissioning Framework', comprising a number of policy-elements, which provides an example of an effective Public Procurement Strategy. These policy-elements are:

- **Commissioning Policy** – to guide project and service delivery through **identification and prioritization**. In other words how to determine what public goods and services are to be procured.
- **Procurement Policy** – or '**due process**' in procurement. How to procure public goods and services; standards for advertising, bidding, pre-qualifying and winning contracts.
- **Contract Management Policy** – this will cover the **supervision and execution** of contracts. Ensuring that contractors and service providers deliver on Time, on Specification and within Budget.
- **Performance Management Policy** – this is the **M&E** component of the CF. It involves collecting data on outputs, outcomes and agreeing key performance indicators.

### Monitoring and Evaluation (M&E)

M&E is here distinguished from supervision. Whilst supervision is vital, it is merely ensuring that proposals are executed according to agreed Quality (specification), Time and Cost standards. M&E involves collecting output and project data, in order to evaluate whether or not projects and programmes are meeting strategic objectives, and indeed whether or not the objectives themselves require adjustment. So whilst supervision ensures plans are adhered to, M&E goes further to question whether the plans themselves are appropriate to producing the intended outputs.

M&E is therefore an essential component of policy formulation and implementation; providing vital feedback and input for adjustment and review, value-for-money auditing, and impact assessment.

### 1.8 The Role of GDI in Improved Governance and Planning

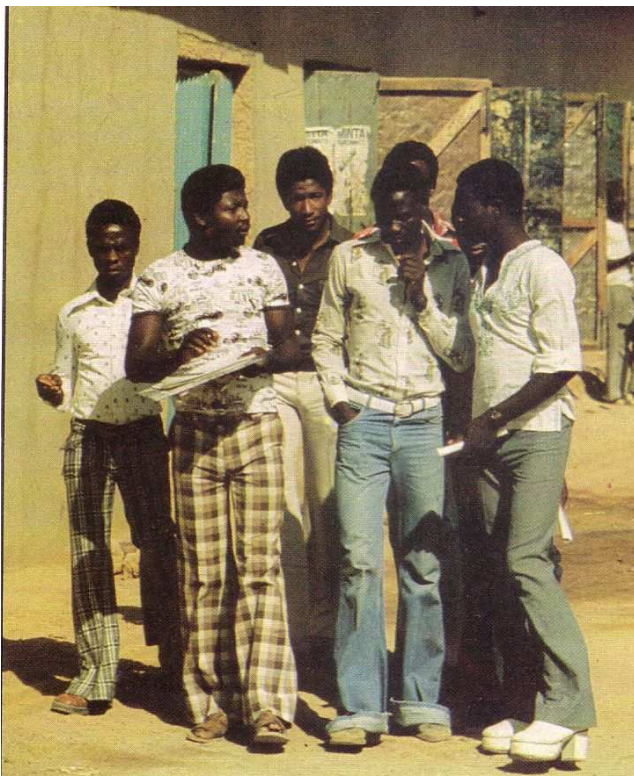
Gathering reliable data is essential to find solutions to urban and regional issues. With the arrival of satellite imagery the need for expensive, survey-based mapping is no longer essential in order to plot data for planning and other purposes. However, the GIS interpretive software and programmes, which are rapidly becoming available in ever more sophisticated form for data retrieval and analysis, depend on reliable databases. In countries with long traditions of censuses, municipal planning, property taxation and investment in urban infrastructure and maintenance, data is available without too much effort being spent on verification and spatial definition in order to avoid the always present problem of 'garbage in, garbage out'.

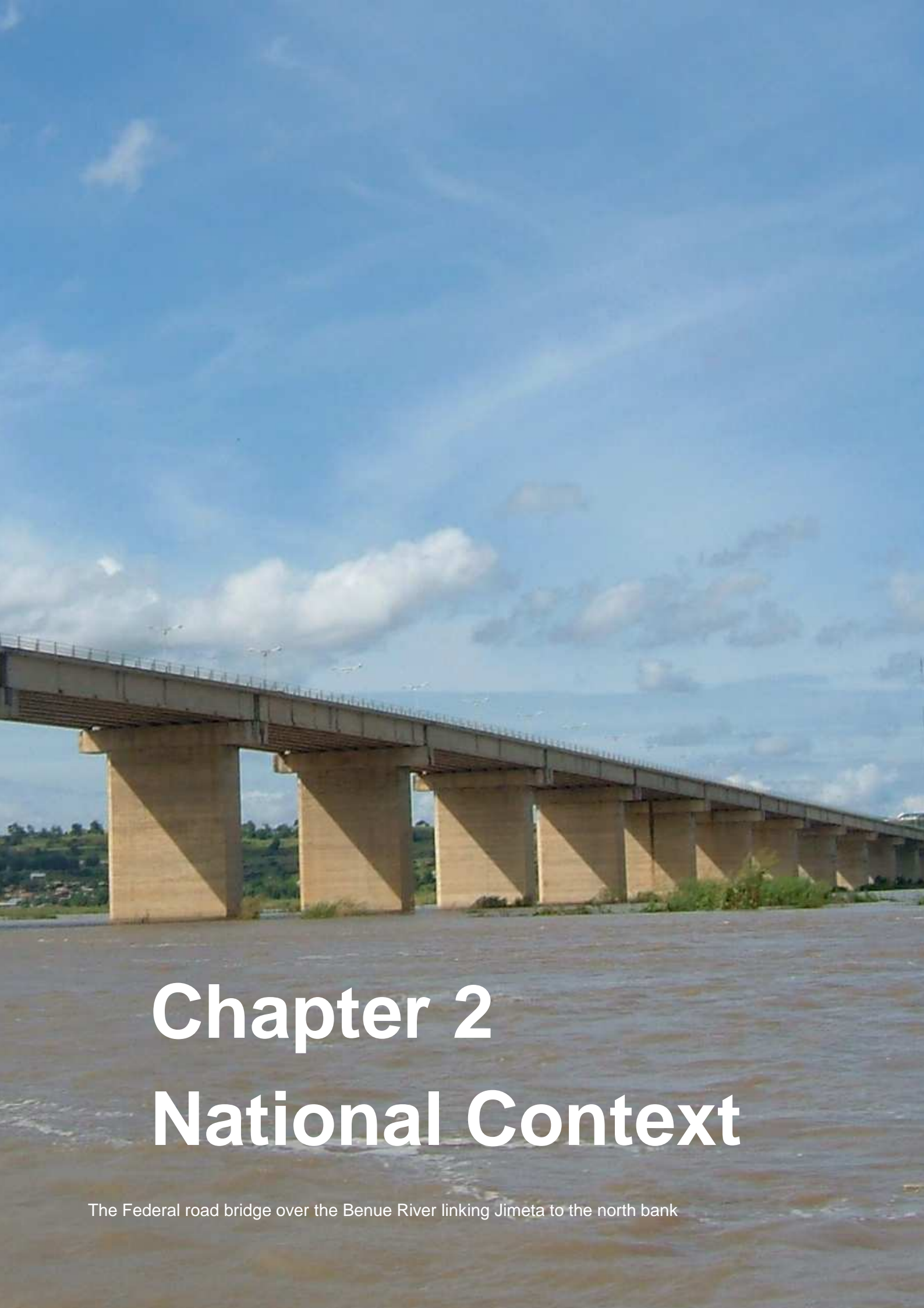
Fresh thinking is required where no local base of reliable data exists. What is available on an international scale is so general and unverified as to be not worth importing into any local database in its present state. Furthermore, the commercially available interpretive software, which can help in automatically turning satellite

images into conventional map images, needs 'ground truthing' (checking the image against what is happening on the ground).

Geo-Spatial Data Infrastructure (GDI) links the latest computer technology with the time-tested methods of ground level surveys and data collection. Plot by plot data collecting techniques developed over many decades are still valid. They are easily understood at the local level and involve local staff and community members in the collection exercise. The basic paper-based collection exercise can then be entered onto a database and related to a satellite-based digital image. Suitably qualified staff can be trained to use personal digital assistants (PDAs) holding the satellite image of the area under survey to locate the data related to any individual plot as well give an overview of the infrastructure at various levels.

GDI can be used in a networked digital environment, implying that the various Ministries of the Government can share the database, thus promoting coordinated and efficient decision-making on urban and regional investment and planning.





# Chapter 2

# National Context

The Federal road bridge over the Benue River linking Jimeta to the north bank

## Chapter 2: National Context

### 2.1 Nigeria – Country Profile

Nigeria has a population of over 144m, growing at 3.2% p.a. (National Planning Commission (NPC), 2006), and spread over some 923,000 square kilometres. Gross Domestic Product in 2006 was \$116.7Bn (per capita GDP \$806), Real GDP growth is 5.6%, external reserves currently stand at over \$44Bn and external debt at \$6.7Bn. (Economist Intelligence Unit, 2007).

The country's 36 States (and Abuja FCT) and 774 Local Government Areas are largely financed by Statutory Allocations from the Federation Account, which derives principally from sales of crude oil. Yet despite fairly generous allocations to Federal, State and Local Governments, Nigeria is considered a 'poor' country, in terms of the living conditions of the ordinary people.

1 in 5 children die before the age of five. 7m children are not in school and 52% of the population live on less than \$1 a day (Nigerian National Bureau for Statistics, 2006). Life expectancy is 44 years (World Bank, 2005), which is lower than all its West African neighbours, and only 48% of the population have access to safe, clean drinking water (UNICEF, 2004).

Nigeria is engaged in a process of economic reform, which has seen sweeping changes, notably in the banking and communications sectors, privatization of government owned industries, as well as a growing confidence in democratic structures and institutions.

Whilst reform has been tangible at a policy and structural level, as noted by both local and international observers, this has yet to percolate meaningfully to the local and community level. Strong, sustainable 'grassroots reform', which impacts on the everyday life of ordinary Nigerians, is yet to happen and the process of policy and institutional reform needs to deepen and mature.

Unless and until this process of maturation happens, the Nigerian economy is likely

remain a paradox – a potentially 'rich' country, with a lot of poor people.

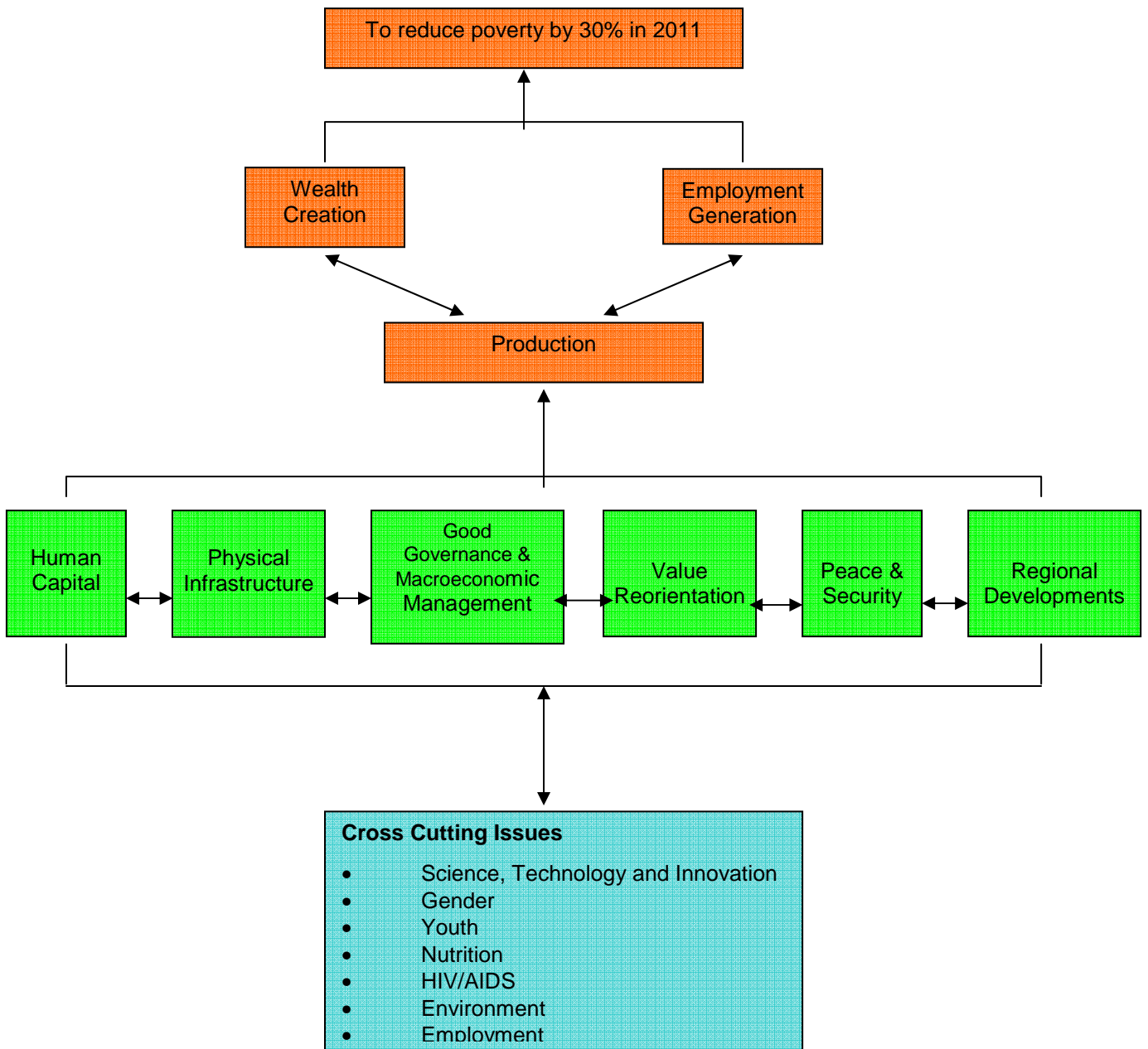
The policy and planning vehicle articulating and driving economic reform is the National Economic Empowerment and Development Strategy (NEEDS), which has been in place since 2004. Additionally there are the two internationally accepted development Frameworks of Sustainable Livelihoods and the Millennium Development Goals. Currently these three vital policy frameworks are separate and rather sprawling. In the following paragraphs they are brought together into a coherent whole to guide the State Government towards a Sustainable Adamawa.

### 2.2 National Economic Empowerment & Development Strategy – NEEDS 2

According to the NPC, Nigeria aspires to be one of the 'leading economies' in the world by 2020 and NEEDS is the strategic blueprint for achieving this goal. It is hinged upon four goals, namely; poverty reduction, wealth creation, employment generation and 'value reorientation'. It has been implemented from 2004 to 2007 in which period Nigeria has seen some notable success, including exiting its Paris Club debts of some \$34Bn and achieving single-digit inflation (NEEDS 2, 2007).

NEEDS 2 is a continuation and deepening of the earlier NEEDS programme and covers the period 2008 to 2011, with the aim of promoting 'inclusive growth' and 30% poverty reduction by 2011. The strategy document published in May 2007 is a draft, which is to be developed and fine-tuned through consultation with the public, private and non-government sectors. NEEDS 2 adopts a sectoral approach to analysing the nation's economy, whilst putting in place an implementation strategy and monitoring and evaluation framework, towards the achievement of Millennium Development Goals (MDGs) by 2015 and the '2020' Vision beyond.

**Diagram 2.1: Strategic Framework for NEEDS-2**



**NEEDS 2 – Current Development Challenges**

In seeking a sustainable development model for Adamawa State it is worth noting what the NEEDS 2 document identifies in Section 1.6 Nigeria’s ‘Current Development Challenges’, as these will be the focus of intervention and national.

policy. The challenges cover economic growth, environmental sustainability, social exclusion and other key areas of national planning and development and are shown here in detail in Box 2.1 Current Development Challenges

**Box 2.1: Current Development Challenges (section 1.6 NEEDS 2)**

Ref	Challenge
1	Reversing the trend of growth without corresponding increase in employment
2	Making governance effective and responsive to the needs of the people
3	Reversing the trend of growth in the manufacturing sector but low capacity utilisation
4	Improving the efficiency of Small & Medium Scale Enterprises
5	Diversifying the economy
6	Reversing the duality and informality of the economy
7	Strengthening the social values
8	Improving access to justice by all
9	Improving quality of output in response to massive expenditure on physical infrastructure
10	Improving quality of output and strengthening entrepreneurial development in response to massive expenditure on education
11	Reducing perceived social exclusion
12	Reducing pervasive high income inequality
13	Addressing the Niger Delta problem and pervasive regional ecological threats
14	Controlling desertification
15	Ensuring security of lives and property including sustainable livelihoods
16	Professionalizing public service and institutionalization of due process
17	Strengthening the coordinated approach to development planning
18	Enhancing the production base through knowledge application and local content policy
19	Reducing gender disparity and striving towards parity
20	Social investment in young and growing population
21	Addressing housing inadequacy and reducing urban slums

Very noticeable by their absence in this list is any mention of the following;

- Healthcare or HIV and other preventable diseases
- Improved access to reliable communications (in all senses) and ICT in particular
- Improving access to safe and clean water, sanitation and drainage
- Establishing a sustainable supply of power

These are all essential priority challenges in a state such as Adamawa. However, given that NEEDS 2 is still in a consultation stage we recommend that State Government lobbies hard for their inclusion. It is then possible that these issues will be addressed with proper priority.

## NEEDS 2 – From a ‘Sustainable Livelihoods’ Viewpoint

The Sustainable Livelihoods (SL) approach is internationally accepted and agreed as a ‘people centred’ conceptual framework, which acknowledges that poverty is multi-faceted and is not merely income-based. It focuses on the livelihood as ‘capabilities, assets and activities required for a means of living’. In other words it deals with the real world in which communities and individuals live, the end-point and ‘final resting place’, so to speak, of policy, projects, interventions and investment. A ‘Sustainable Adamawa’ must be one that creates a context in which sustainable livelihoods can flourish.

The SL framework broadly groups peoples’ asset base under five headings. These, together with the ‘vulnerability context’ in which people and communities live determine their potential to achieve sustainable livelihoods. The five livelihood asset headings are;

- **Financial Capital** – refers to the conventional definition of capital, as financial and economic assets available for investment, trade and exchange.
- **Human Capital** – is principally healthcare and education, which

bestow basic skills and good health on an economy, community or individual in pursuing a livelihood.

- **Natural Capital** – is the ‘God-given’ environment and resources, land, water, vegetation and so on.
- **Physical Capital** – is the ‘man-made’ infrastructural investment that provides a built environment for both the national economy and the individual’s livelihood.
- **Social Capital** – is the ‘glue’, which binds communities together and allows them to work together productively and includes group membership and traditional culture.

Analysing the ‘current development challenges’ identified by NEEDS2 and shown in Box 2.1 and using SL headings allows us to band the 21 challenges identified in NEEDS 2 and our 4 recommended additions thematically (see Box 2.2). This will hopefully give some shape to an otherwise sprawling list and, more importantly, will help relate policy and macro-economic challenges to the community (or ‘livelihood’) level.



<b>Box 2.2 Sustainable Livelihoods analysis of NEEDS 2 Current Development Challenges (Sect 1.6 NEEDS 2)</b>		
<b>Ref.</b>	<b>Challenge</b>	<b>Comment</b>
<b>Financial Capital</b>		
1.6.1	Reversing the trend of growth without corresponding increase in employment	Increasing automation and modernisation inevitably tends to be less labour intensive
1.6.3	Reversing the trend of growth in the manufacturing sector but low capacity utilisation	Private sector ownership and management will tend to promote industrial efficiency
1.6.4	Improving the efficiency of Small & Medium Scale Enterprises	SME support and expansion will broaden the base of enterprise growth and answer the challenges. 1.6.1 & 1.6.3 above There is a correlation between items 1.6.4, 1.6.5, 1.6.6, and 1.6.18. It has do with 'thinking small', promoting local and community enterprises and govt. policy 'following' and supporting, rather than driving and dictating to Small Scale Enterprise (SSE).
1.6.5	Diversifying the economy	
1.6.6	Reversing the duality and informality of the economy	
1.6.18	Enhancing the production base through knowledge application and local content policy	
<b>Social Capital</b>		
1.6.2	Making governance effective and responsive to the needs of the people	Greater participation and consultation in planning and policy decision-making required.
1.6.7	Strengthening the social values	Traditional and cultural values and institutions already have much to offer by way of contribution, but are often overlooked as being 'problematic'.
1.6.8	Improving access to justice by all	Social exclusion and marginalisation (the inability of people to participate and enjoy benefits and rights considered normal by the society's standards) are often overlooked aspects of relative poverty, which erode social cohesion and undermine social capital.
1.6.11	Reducing perceived social exclusion	
1.6.12	Reducing pervasive high income inequality	
1.6.15	Ensuring security of lives and property including sustainable livelihoods	
1.6.16	Professionalizing public service and institutionalization of due process	Accountability must be a two-way process between the government and the people. If those with access to power are seen to live above the law, 'reforms' are meaningless.
1.6.17	Strengthening the coordinated approach to development planning	The contents of this report are intended to suggest one way of achieving this.
1.6.19	Reducing gender disparity and striving towards parity	This must begin (but not end) by closing the gender education-gap at all levels.
<b>Natural Capital</b>		
1.6.13	Addressing the Niger Delta problem and pervasive regional ecological threats	Ecological and environmental threats and climate change need a much higher profile in an economy in which over 70% of the population live directly off the land.
1.6.14	Controlling desertification	
1.6.21	Addressing housing inadequacy and reducing urban slums	According to UN Habitat, Nigeria is 50% urbanised this year. Urban development, though not listed as either a distinct sectoral or 'cross-cutting' issue deserves a much higher profile in NEEDS 2.
<b>Human Capital</b>		
1.6.10	Improving quality of output and strengthening entrepreneurial development in response to massive expenditure on education	Appropriate, qualitative and universal primary and secondary education are the surest way of producing capable adults with the self-confidence for entrepreneurship.
1.6.20	Social investment in young and growing population	
<b>SADR</b>	<b>Health, HIV &amp; preventable disease</b>	<b>Major developmental challenge and area of expenditure missing from list.</b>
<b>Physical Capital</b>		
1.6.9	Improving quality of output in response to massive expenditure on physical infrastructure	Because of the high cost of infrastructure, it must be driven more by sound, rational planning and less by political opportunity
<b>SADR</b>	<b>Improved access to reliable communications (in all senses) and ICT in particular</b>	<b>Major developmental challenge and area of expenditure missing from list.</b>
<b>SADR</b>	<b>Improving access to safe and clean water, sanitation and drainage</b>	<b>Major developmental challenge and area of expenditure missing from list.</b>
<b>SADR</b>	<b>Establishing a sustainable supply of power</b>	<b>Major developmental challenge and area of expenditure missing from list.</b>

## 2.3 MDGs and their Achievement in Adamawa State

The Millennium Development Goals (MDGs) come from the Millennium Declaration, agreed and affirmed by 147 heads of state and government in September 2000. There are 8 MDGs, with 18 targets and 48 indicators. The indicators are agreed key means to be used to monitor and measure performance and progress towards the headline goals.

In data-poor environments such as Adamawa State (this applies to Nigeria and most of Sub-Saharan Africa as well) getting accurate data for indicators is challenging to say the least, so measuring progress is at best inaccurate. At worse the lack of data means it is difficult to even plan the programmes and policies, which will help achieve MDGs. Adamawa State and other places caught in this dilemma have little realistic chance of achieving MDGs, when they cannot tell if their policies and investments are working or not.

Data-poverty hampers effective governance by denying government and business the information needed for strategic decision-making, thus undermining public and private service delivery and investment. The lack of data is arguably the main challenge to achieving MDGs. Hence there is the need to add access to reliable communications and IT to the Current Development Challenges.

### The 48 MDG Indicators and their local relevance

It is probably worth beginning this section by quoting directly from the MDG Indicators handbook (UN Development Group, 2003);

‘Five main criteria guided the selection of indicators. Indicators should:

- Provide relevant and robust measures of progress towards the targets of the Millennium Development Goals
- Be clear and straightforward to interpret and provide a basis for international comparison

- Be broadly consistent with other global lists and avoid imposing an unnecessary burden to country teams, Governments and other partners
- Be based to the greatest extent possible on international standards, recommendations and best practices
- Be constructed from well-established data sources, be quantifiable and be consistent to enable measurement over time’.

The indicators are extracted from census data, health and education records, household surveys and records of Government ministries, agencies and parastatals involved in economic planning and service delivery. They include from straightforward measures such as school enrolment rates and infant and maternal mortality rates, to indirect indicators of poverty or affluence, such as access to essential drugs and telephone ownership. Some of the indicators are only relevant at a country level, but many derive from data that should be regularly collected and readily available even at a local level.

It is unlikely that data will need to be gathered merely for the purpose of monitoring indicators. Most of the data is needed for day-to-day economic and physical planning and ought to be regularly monitored for regular administration and policy-making purposes. There should therefore not be an issue of MDG progress measurement and monitoring adding an additional financial or logistic burden to Government. Rather, measures that are needed to put in place an infrastructure for rational and economic planning should also ensure that such data is collected and updated on a regular basis.

## 2.4 Basic Infrastructure: Roads and Power Supply

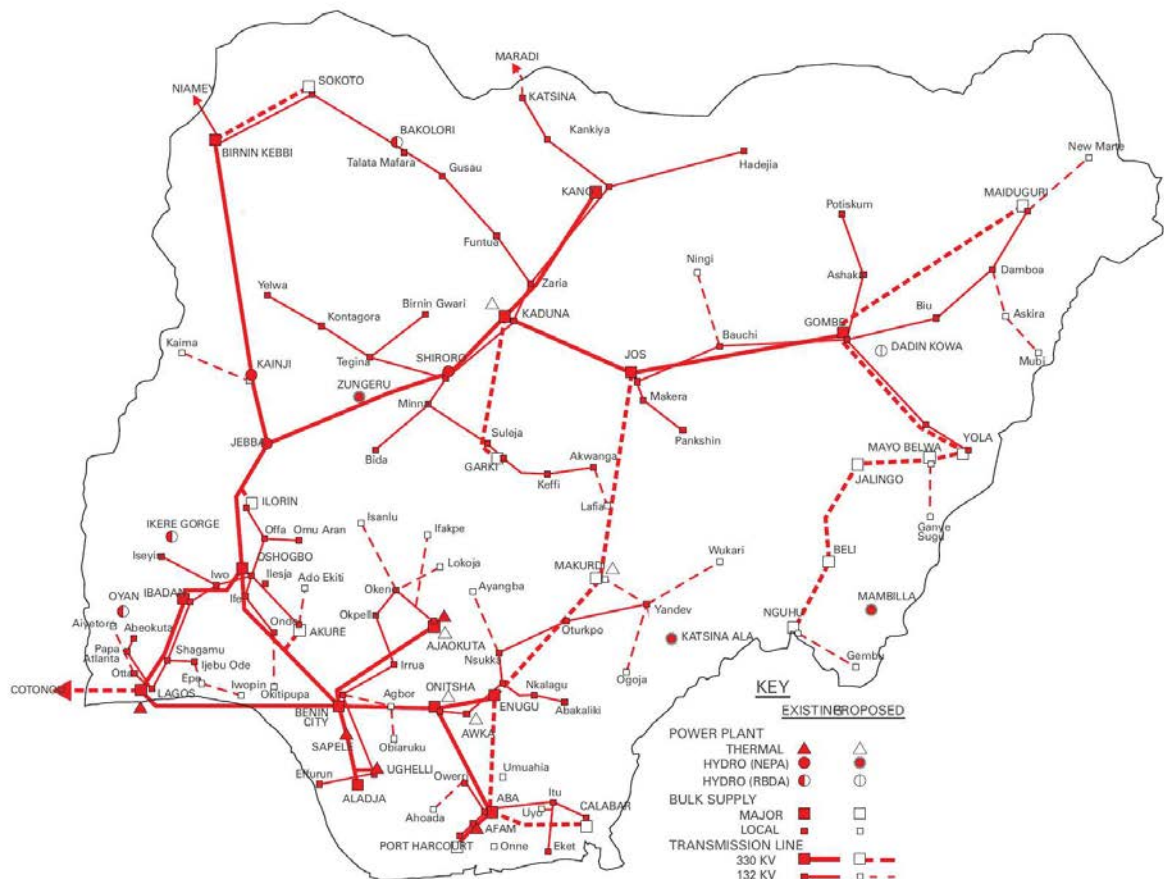
### NEPA/PNHC National Grid

This map of the existing and proposed national electricity grid is taken from an original NEPA map at about 1:1,000,000 scale probably made in the early to mid nineties and copied as part of a Petroleum Trust Fund project in 1997 for Afriprojects. It is largely diagrammatic but it is an accurate copy of the original.

It bears some relationship to actual construction work that we have observed on the ground although we have been unable to confirm or obtain completion or even progress dates for any of these proposals in the time at our disposal. It is vital that this information is made available so that there can be assured supplies to the lower voltage network

supplying electricity to the developing Local Government Headquarters Towns and the Capital Greater Yola.

Confirming these dates for completion of the grid network and the programmes for the hydroelectric scheme in Mambilla commissioned in the latter days of the last government are essential to any proper planning in Adamawa. Firm knowledge of the state of negotiations between the Republic of Cameroon and the Federal Government of Nigeria for cross-border supply from hydroelectric schemes on the upper Benue River system inside Cameroon is also a high priority.



Map showing Major Electrical Power Distribution across Nigeria

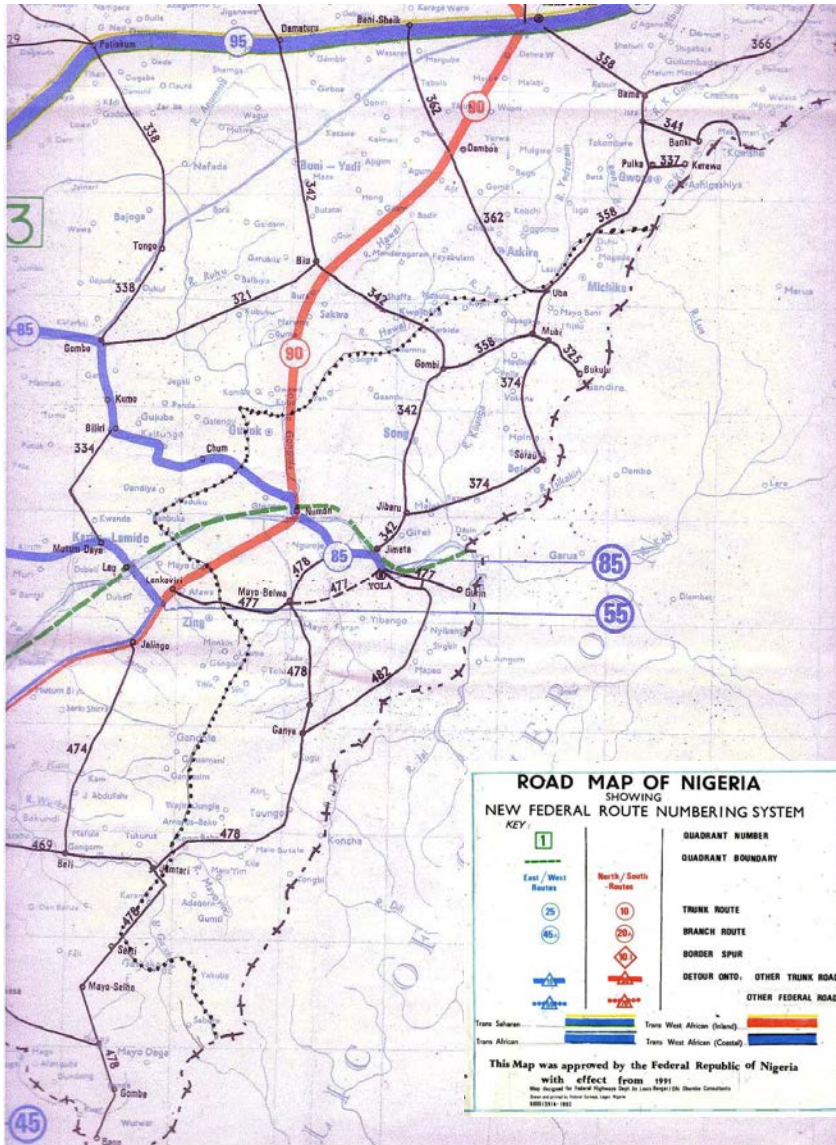
### National Road Network

We have been unable to get any firm response from the Federal Ministry of Transportation concerning short, medium or long term plans for new, upgrading or maintenance programmes for the Federal road system as it affects road access to Adamawa State. It is paramount that this information is made available with contract details of specification and completion dates.

The official Federal Government approved (1991) national re-classification of Federal Trunk Routes is shown here as it affects Adamawa State. Road access to Adamawa from the rest of the Federation is severely restricted by having only one North South (90)

Trunk Route along the western edge of the State and one East West (85) across the centre from Yola to Gombe. They cross each other at the Numan Bridge over the Benue River. The remaining Federal Roads in the State Including the main north south spine road from Gulak to Toungo and the spurs off it are the basic transport skeleton of the State. All these roads are in a poor state of repair and 'unfit for purpose'.

In the absence of national network data the State Government has been investing in both local road works and electricity supply. This is not satisfactory for rational and coordinated planning of scarce resources.



The map shown here is a scan of the north-eastern part of a national road map showing the new Federal Route Numbering System approved by the Federal Republic of Nigeria with effect from 1991.

The Ministry of Transportation was unable to supply a map giving details showing the current state of existing and proposed Federal roads in relation to federal road access to and within Adamawa State that could be used for this State Government commissioned report.

The Ministry directed us to Federal Surveys where this map was obtained as being the most recent Federal Road Map.

## 2.5 The Role of Local Government

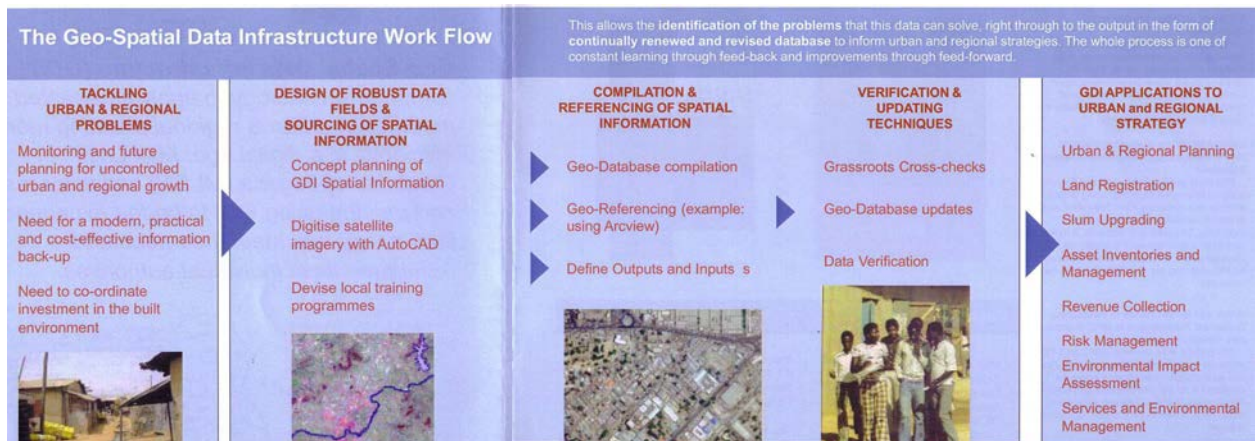
Local Government is the third tier of Government in Nigeria lying below the Federal and State Governments. There are 774 Local Government Areas in the country, with an average of 21 per State (State & Local Governance in Nigeria, World Bank, 2001). Adamawa State has 21 Local Government Areas (LGAs). As the closest tier of Government to the grassroots, they occupy a very crucial space in the governance structure and are probably the most important in terms of basic service delivery.

LGAs in Adamawa State vary in population from 52,040 (Toungo) to 207,287 (Fufore), with an average of 150,824 (NPC, 2007). At this level of disaggregation it is clear that the LGAs are sufficiently close to local communities to be able to plan and execute relevant development projects, given appropriate training, policy direction and framework (see Chapter 3, for fuller discussion of this).

## 2.6 Geo-spatial data for Planning, Monitoring & Evaluation at Local Government Level

The key to effective planning using geo-spatial methods involves the use of maps and imagery, linked to accurate data. Adamawa State Local Governments have population to staff ratios of between 36 to 249. Given appropriate training and data collection tools it should be possible to put in place an effective planning and implementation monitoring structure using Local Government staff, with technical support from the State Government.

Current, affordable technology means that hand-held devices can be used to collect information around the Local Government Area, for household surveys and commercial activity, and satellite images can identify buildings and local assets and resources. Once an appropriate planning and monitoring and evaluation framework has been agreed, which meets desired objectives, the process of implementing a simple, practicable and appropriate geo-spatial planning and monitoring system would be relatively straightforward.



The Geo-Spatial Data Infrastructure Work Flow allows the identification of the problems that this data can solve, right through to the output in the form of continually renewed and revised databases to inform urban and regional strategies. The whole process is one of constant learning through feed-back and improvements through feed-forward.



# Chapter 3 Governance

The original Local Government Central Office building in the centre of Yola

## Chapter 3 – Governance

### 3.1 Context: Adamawa State

His Excellency Governor Murtala Nyako heads the Executive arm of State Government, which comprises 17 Ministries, with their respective Parastatals and Boards. The State Legislature comprises 25 State Assembly Members, representing the state's 3,168,101 population (NPC, 2007), and is drawn from 21 Local Government Areas.

In order to decentralise development to the local level, the state's 21 Local Governments are further divided into 37 Development Areas, headed by Administrators.

Community involvement in governance is principally through the traditional institutions, which participate by providing social cohesion, security advice, customary justice and land matters. Most importantly the traditional institutions, the Adamawa Emirate Council, under the Chairmanship of HRH The Lamido of Adamawa, provide a vital source of supra-political continuity and balance. There are eight Emirate Councils in the state, namely; Adamawa, Mubi, Ganye, Numan, Shelleng, Guyuk, Bata and Mbula.

#### Good Governance

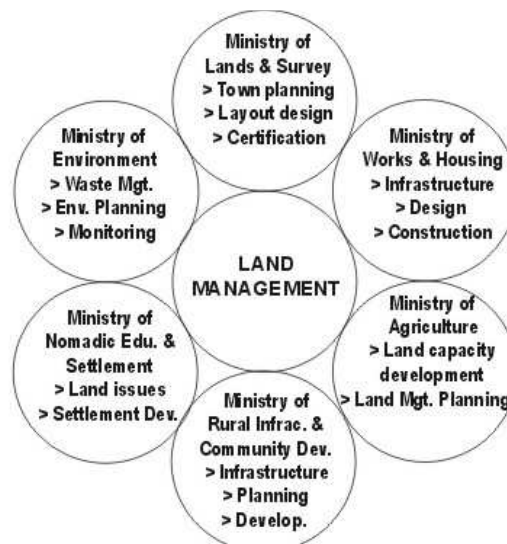
Governance essentially refers to the relationship between government and the 'governed' and the way this plays out through formal and informal hierarchies and power structures. When the 'relationship' is open,

strong and mutually accountable, this may be referred to as 'good governance', and is more likely to result in meaningful and sustainable development. When the relationship is opaque, weak, antagonistic and filled with suspicion - the contrary is true.

In order for the benefits of national planning to flow downwards, through the State governments and ultimately to the local level, there is need for a framework that allows for an ebb and flow of policy, planning, implementation, monitoring and evaluation, from the macro planning level (Federal Government), through the meso (State Government) and down to the micro level (Local Government).

Adamawa state needs to strengthen its administrative governance structure, reduce duplication and over-fragmentation, in order to draw the various ministries and community/traditional structures into a coherent working whole. The diagram below illustrates the way in which a single issue, in this case 'Land Management', impinges on multiple state government ministries. The Adamawa State Urban Development Board also has a potentially strong role. It is necessary to clearly define the roles and remits of each of these agencies, in order to avoid duplication and maximize effectiveness.

**Diagram:** 'Land Management' Overlaps



## 3.2 The State & Local Government Questionnaire Survey

### Methodology

The State Government questionnaire was designed to extract key pieces of information and impressions that would provide a basis for analysis and evaluation, under a number of headings;

- Organisational Structure
- Strategic Direction
- Projects
- ICT Resources
- Human Resources, and
- MDGs

The Local Government questionnaire was more in-depth, and in addition to the above areas also looked at the key sectors of local health, education and the infrastructure of the local government headquarters towns. The purpose is to assess governance and administrative capacity, as well as identify gaps and areas for intervention.

Answers received to the questionnaires were coded, cross tabulated and summarised on an establishment spreadsheet, to allow qualitative answers to be captured quantitatively.

### Summary of Questionnaires

All the State Government Ministries (17 No.) responded to the questionnaire survey, returns were received between three days and two

weeks period from distribution. The questionnaire evaluation showed that time and space for form filling were the areas that respondents would want to see improved. Whilst the questionnaires were filled satisfactorily, additional information such as staff lists and details of projects were somewhat patchy.

It was apparent that much information was not readily retrievable, although with some effort it could be sourced. It was also not easy to get comprehensive information, such as lists of all Ministries with their Parastatals and Agencies, in one place. A common database of accessible, general information does not exist and most ministries are only aware of what goes on in their own 'patch' or area of responsibility.

At the Local Government Level the response was generally positive. The response from Local Governments was good and in many cases their approach was either to split the form amongst departments or to have a group session in which relevant officers answered questions. Because there have been recent surveys in health and education, as well as monitoring of various externally funded programmes, the Local Governments were able to respond to the questionnaire confidently.

Full Analysis Spreadsheets of the questionnaire returns for State Ministries, Parastatals and Local Government are available on the attached CD.



Ref: MLCN/LGAQ/SADR  
Version: 003  
Date: August 2007  
Approved: MT

Interview Reference:  /  /   
(For Official use only)

**MAX LOCK CONSULANCY NIGERIA (MLCN) Ltd.**  
**"SUSTAINABLE ADAMAWA" DEVELOPMENT REPORT**

**LOCAL GOVERNMENT AREA QUESTIONNAIRE**

For Official use only

Date delivered: D:  M:  Y:   
Collection date: D:  M:  Y:

Kindly fill in all the requested information below. If you have any difficulties please call Max Lock Consultancy Nigeria Ltd. on; 0806095 8182, 08037218438, 08023366843. Thanks for your cooperation.

To the Chairman:   
Name of Local Government Area:   
Address/Location:   
Telephone/Fax:   
E-mail:   
Name, Rank & GSM number of Contact/Liaison Person:

**ORGANISATIONAL STRUCTURE**

1. What is your total staff strength?
2. Do you have any offices outside the LGA HQ? 

Yes	No
-----	----
3. If "Yes", where are your local offices, please list with location and staff.

Location	Number of staff	Male	Female
i.			
ii.			
iii.			
iv.			
v.			
vi.			

**Local Government Questionnaire:**

The Local Government response was generally positive. The response from Local Governments was good and in many cases their approach was either to split the form amongst departments or to have a group session in which relevant officers answered questions. Because there have been recent surveys in health and education, as well as monitoring of various externally funded programmes, the Local Governments were able to respond to the questionnaire confidently.

Ref: MLCN/PSQ/SADR  
Version: 001.2  
Date: August 2007  
Approved: MT

Interview Reference:  /  /   
(For Official use only)

**MAX LOCK CONSULANCY NIGERIA (MLCN) Ltd.**  
**"SUSTAINABLE ADAMAWA" DEVELOPMENT REPORT**

**PUBLIC SECTOR QUESTIONNAIRE**

For Official use only

Date delivered: D:  M:  Y:   FG  SG  LG  Other  
Collection date: D:  M:  Y:

Kindly fill in all the requested information below. If you have any difficulties please call Max Lock Consultancy Nigeria Ltd. on; 0806095 8182, 08037218438, 08023366843. Thanks for your cooperation.

To, Name:   
Designation:   
Name of Ministry/Agency:   
Address/Location:   
Telephone/Fax:   
E-mail:  Website:   
Name, Rank & GSM number of Contact/Liaison Person:

**ORGANISATIONAL STRUCTURE**

1. What is your total staff strength?
2. How many of this total is based at headquarters office?
3. How many of this total is based in your sub-offices?
4. How many sub-offices does your Ministry/Agency have?
5. Do you have a sub-office in every LGA? (Delete One) 

Yes	No
-----	----

If "No", list below.

<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>

**State Government Questionnaire:**

All the 17 State Government Ministries and their Parastatals responded to the questionnaire survey, returns were received between three days and two weeks period from distribution. Whilst the questionnaires were filled satisfactorily, additional information such as staff lists and details of projects were somewhat patchy.

It was apparent that much information was not readily retrievable, although with some effort it could be sourced. A common database of accessible, general information does not exist and most ministries keep their data in their own way and are only aware of what goes on in their own 'patch' or area of responsibility.

**The Questionnaires**

Three sets of questionnaires were designed and printed. The first was aimed at the State Government Ministries, the second at the State Government Parastatals and Boards and the agencies of the Federal Government in the State and the third at each of the Local Government Areas in the State.

The first two were of similar design consisting of seven pages and thirty-three questions and the third was of eleven pages and fifty-three questions. In each case we tried to ensure the questionnaire was delivered to the Hon Commissioner in the case of Ministries, the Director of Parastatals and Federal Agencies and Chairman of Local Government along with a face to face interview.

Examples of the first page are given here and the full questionnaire is given in Appendix 2, which is on the CD attached inside the rear cover.

The State Government questionnaire was designed to extract key pieces of information and impressions that would provide a basis for analysis and evaluation, under a number of headings;

- Organisational Structure
- Strategic Direction
- Projects
- ICT Resources
- Human Resources, and
- MDGs

The Local Government questionnaire was more in-depth, and in addition to the above areas also looked at the key sectors of local health, education and the infrastructure of the local government headquarters towns. The purpose is to assess governance and administrative capacity, as well as identify gaps and areas for intervention.

## Analysis & Evaluation

### Organisational Structure:

State government ministries in general show a high degree of decentralisation, with 10 of the 17 ministries showing a 'decentralisation ratio' (i.e. Staff outside HQ ÷ Total Staff, as a percentage) of over 50%. Decentralisation bodes well for ensuring that policy reaches the local level. However, the fact that the main means of communication between all ministries and their local offices is still the type-written letter or memo, often delivered by messenger, is a constraint to the effectiveness of planning, implementation and monitoring/evaluation.

Local Governments' staff strength varies greatly between 725 in Guyuk to 2009 in Fufore. When related to the population being served by the Local Government administration; population per Local Government staff ratios show an over 700% variance ranging from 36 (Toungo) to 249 (Yola-North). These data have implications for employment and service delivery. With such variation, there may be a need to consider a differentiated approach to the embargo on employment, rather than the current blanket ban. Those Local Governments that can demonstrate that they need staff to carry out their Primary Mission more effectively should be allowed to make a business case for recruitment of new staff.

### Strategic Direction & Projects

Across the board at both State and Local Government level there is clarity of purpose, with State Ministries and Parastatals pursuing policy and project implementation and Local Governments focusing on basic service delivery and 'development'. The key problem faced in executing the Primary Mission is unequivocally finance and funding for activities and programmes. However, when questioned about Monitoring & Evaluation (M&E), it is clear that respondents do not make a distinction between M&E and 'supervision'. Supervision is simply ensuring that projects are carried out according to plan and agreed objectives. M&E goes further to question the

'plans' themselves. In other words, going beyond asking merely if plans are being executed, but to question priorities and see if set objectives are adding to overall developmental objectives. Of the 17 Ministries, 12 Parastatals and 21 Local Governments only 1 Parastatal and 6 Ministries made reference to 'value for money' or use of M&E to measure project success.

Project identification and prioritization at the State level is expectedly driven more by policy directive, whilst at the Local Government level it involves more of a needs-responsive and consultative approach. Whilst community participation at the Local Government level is a better guarantee of the sustainability of interventions, these claims should not be taken at face value. Further study may be needed to clarify exactly how Local Governments engage with end-users and what participative tools are employed to capture the buy-in of communities.

(Comments on Human Resources, ICT and Finances are covered in 3.3 and 3.4 below).

### Millennium Development Goals

The broad impression garnered at both State and Local Government level is that whilst there is a general awareness of MDGs, they are yet to become part and parcel of the planning and target-setting process for policy and project implementation. This may be unsurprising as even at the National level, although NEEDS 2 is focused on the achievement of MDGs, this intention is yet to be articulated in concrete targets and sub-targets, which can be devolved through States to the Local Governments.

Gender is a thorny issue as Adamawa is steeped in traditional culture - a key source of social capital and cohesion - but which does not always bode well for gender equality. Although most government agencies claim to have an 'equal opportunities' policy with respect to gender, top management is overwhelmingly male dominated. More assertive action will be needed to close the gender-opportunity gap, otherwise an 'equal opportunities' approach may simply reinforce female disadvantage.

Printed [Date]

Qn. No.	Questions	Local Government Areas	1. Song	2. Gombi	3. Hong	4. Mubi-North	5. Mubi-South	6. Malina	7. Michika	8. Madagali	9. Yola-North	10. Yola-South	11. Girei	12. Fufere	13. Numan	14. Lamunde	15. Guyuk	16. Demsa	17. Shaling	18. Mayo-Belwa	19. Jada	20. Ganje	21. Toungo	TOTAL	No. of RESPONDENTS	AVERAGE	RANGE	PROPORTION of Responses (%)	Comment / Insight	
29	Human Services Lists of Govt & Priv Vol Pvy Schs Govt Sch list provided? Priv Vol Sch list provided? Schools list Summary: 29.1 Total Number 29.2 Total Enrolment 29.3 Boys 29.4 Girls 29.5 No. of Teachers 29.6 No. of Classrooms 29.7 Minor Maint. Required 29.8 Major Maint. Required 29.9 Staffs shortfall Students Gender balance M-F (face) Student/Classroom Ratio Student/Teacher Ratio Diff b/w 17% popn. & Total Enrolment Classroom shortfall based on enrolment	Yes/No	1	1	1	1	1	1	1	1	1	1	0	1	0	0	0	0	1	1	1	1	1	1	18					Schools data to be cross-checked against UBE records, which are very comp-rehensive. LGs with 10% or more gender disparity in their overall enrolment have been highlighted. Hong and Michika have bucked the trend and have enrolment balances in favour of girls. Student/Teacher ratios seem fair at first glance. However the distribution of teachers b/w rural and urban schools is very top-aided, with teachers apparently unwilling to accept
30	Lists of Govt & Priv Vol Clinics Govt Clinic list provided? Priv Clinic list provided? Clinics list Summary: 30.1 Total Number 30.2 In patients 30.3 Out patients (OPD) only 30.4 No. of beds 3.5 LG Healthcare Staff** 3.5.1 No. of Doctors 3.5.2 No. of Comm. Health Officers 3.5.3 No. of Nurses/Midwives 3.5.4 No CHEWs** 3.5.5 No of J.CHEWs*** 3.5.6 No of Env. Health Officers 3.5.7 No of Pharmacy Technicians 30.6 Minor Maint. Required 30.7 Major Maint. Required 30.8 Staff shortfall Number of Dr/Nurse-Midwives or CHOs Population per Doctor, Nurse or CHO. Population per local/PHC Clinic Staff shortfall @ 10k popn. Per Dr/Nur/CHO Clinic shortfall @ 5,000 popn. Per clinic	Yes/No	1	1	1	1	1	1	1	1	0	1	1	1	0	0	0	0	1	1	1	1	1	1	17					**Sourced from MoH Health Systems Dev Project Report - July 2006 ***Community Health Extension Worker ***Junior Comm. Health Extn. Worker LGs with more than 20k popn. Per Dr, Nurse or Community Health Officer marked red.
31	Finances Income: Av Monthly Allocation (12 months) Info provided?	Yes/No	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20					
32	Av Monthly Int. Gen. Revenue Info provided?	Yes/No	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20					Note: The figures quoted for income and expenditure need to be carefully looked at. In some cases it is obvious that gross figures were quoted for the whole year, i.e. not divided by 12.	
33	Expenditure: Av Monthly Expenditure Info provided?	Yes/No	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20						

### Analysis of Questionnaires

Spreadsheets were designed for each of the three questionnaires – those aimed at State Government Ministries, Parastatals and Federal Agencies and Local Government Areas.

In each case the spreadsheet listed all those distributed with the relevant questionnaire across the top and all the questions listed down the left hand column. In this way a complete overview of the responses by responder and question topic was possible.

The A3 printed spreadsheets for State Ministries and Parastatals run to four pages each and that for Local Government Areas to six pages. A sample page of the Local Government spreadsheet is given here and the full versions are in Appendix 1, which is on the CD attached inside the rear cover.

### LGA Questionnaire Analysis Spreadsheet

This is a reduced version of the original A3 printed page 4 of the Local Government Analysis spreadsheet. It shows at a glance the answers to questions 29-33 on education, health and finance statistics as supplied by each Local Government. A preliminary analysis of this data has been made for this report.

However, two things must be stressed. First, these figures do not show either the geographical distribution of the educational and health services or the individual state of repair or quality of service delivered. Second, these figures need to be checked on the ground and with the parent Ministries. Although there have been attempts to standardize the collection and presentation of statistics it is also apparent that generally each local government tends to keep its statistics in its own way. Examining these issues and building up an evaluated, comparable and verified data base would play a major role in any second phase of this Study.

### Constraints & Opportunities

The overwhelming constraint facing the State is visibly the basic infrastructure to support economic activity. The roads and power sectors are in particular need of attention and are currently being addressed by the State Government. These issues are covered elsewhere in this report. This section deals with other constraints and opportunities emerging from MLCN's study.

#### Constraints

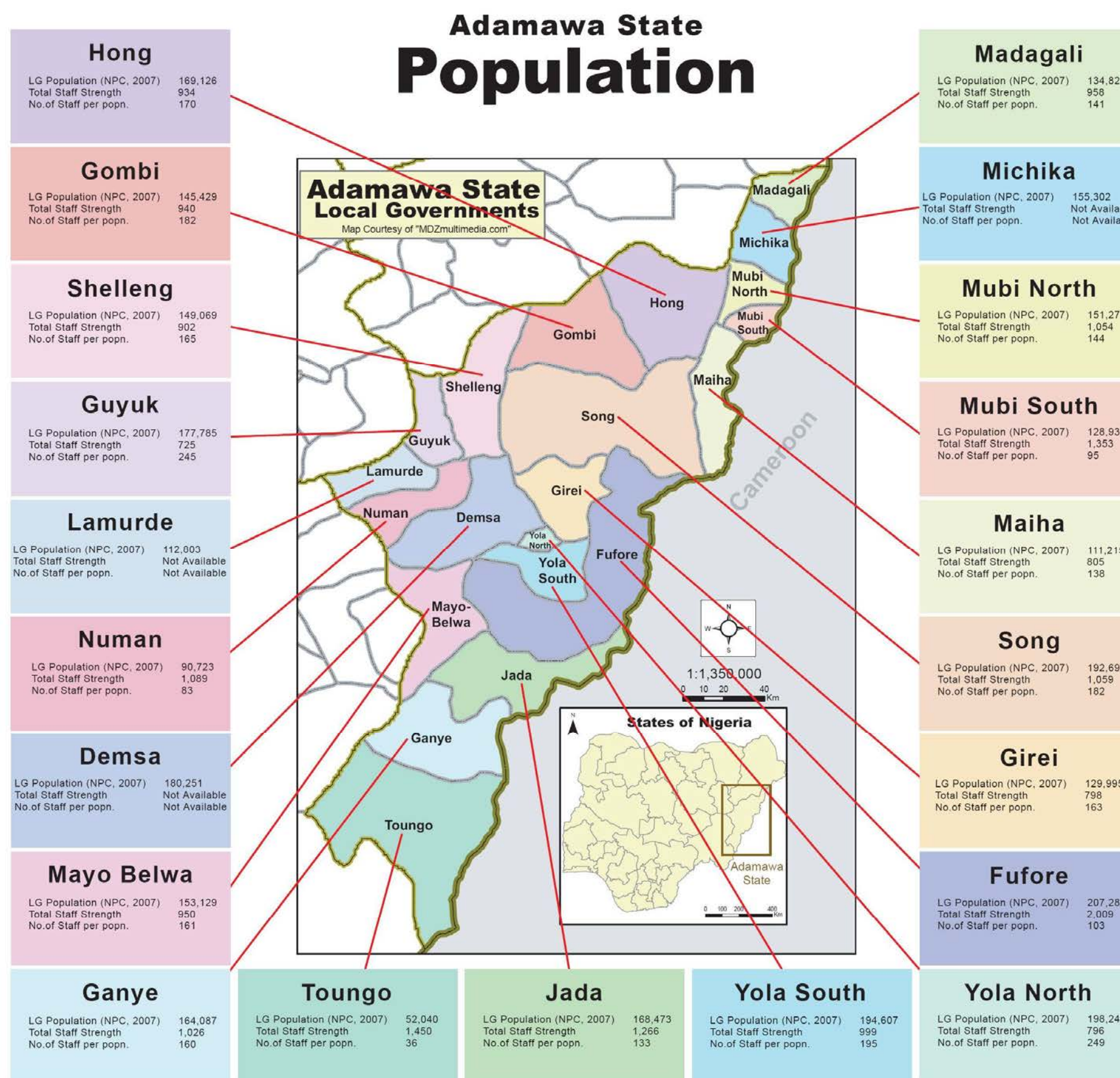
- State/Local Government Joint Account (JAC) – 75% of Local Government respondents identified the State/Local Government Joint Account as the aspect of policy in most need of review. Whilst the Local Governments wish for financial autonomy, or at least less statutory deductions by the State, the State desires greater accountability and control of resources. The JAC can be used for coordinated development planning and implementation monitoring. Review of the JAC might be in order, but the intention should be to make it more effective as a platform for 'joined up' government between the State and Local Government tiers, rather than scrapping it.
- Gender – Gender imbalance remains a constraint to achieving sustainable development and the MDGs. There is still a gender education gap, with 14 of 18 respondents to the education questionnaire reporting more than 5% difference in enrolment rates in favour of boys. If this gap cannot be closed, there is little hope that long-term gender equity can be achieved.
- Monitoring & Evaluation – Effective M&E is needed to provide a basis for accountability and sustainable governance in Adamawa. By adopting an iterative approach to planning, implementation and M&E, the development process becomes dynamic and can be fine-tuned to ensure development objectives are achieved.
- Funding – Internally Generated Revenue (IGR) and alternative sources of finance are essential to move the State and Local Governments away from their present total

dependence on statutory allocations.

Financial dependency is a major characteristic of a non-sustainable economic model. There is evidence of micro-economic activity in the markets and street across the State, but the low level of IGR reported by Local Governments indicates this activity is largely informal and 'off the books'.

#### Opportunities

- Workplans for Local Governments – The recent introduction of Workplans by the Ministry for Local Government & Chieftaincy Affairs is a very positive development; they will provide a tangible reference point for the review and development of the JAC. By requiring Local Governments to submit Workplans, they are being made to plan, budget and account for expenditure in consonance with State Government priorities.
- Local Knowledge – At both State and Local Government level there is a wealth of local knowledge and experience, which the government and people can benefit from. However because information is not being managed optimally, much of this knowledge remains in the heads of officers – it is not captured or shared and is generally used in an ad-hoc manner. Better information management using ICT will allow a learning and knowledge-sharing culture to evolve.
- Traditional Institutions – Adamawa enjoys a reputation for relative peace and stability, which owes much to the traditional institutions in the State. These institutions enjoy the support and confidence of most people and they represent an opportunity for community-driven input into the development of the State.
- Agriculture – The State's economy is fundamentally agro-based and even urban dwellers maintain farms in the rural areas. Agricultural products and renewable natural resources provide the readiest basis for any future manufacturing development. Despite the lack of investment in the sector, agriculture remains the State's main hope for developing a sustainable economy.



### Population and Staff in Local Government Areas

Local Governments' staff strength varies greatly between 725 in Guyuk to 2009 in Fufore. When related to the population being served by the Local Government administration; population per Local Government staff ratios show an over 700% variance ranging from 36 (Toungo) to 249 (Yola-North). These data have implications for employment and service delivery. With such variation, there may be a need to consider a differentiated approach to the embargo on employment, rather than the current blanket ban. Those Local Governments that can demonstrate that they need staff to carry out their Primary Mission more effectively should be allowed to make a business case for recruitment of new staff. However, both population and staff statistics are not entirely reliable and would need to be checked on the ground at the second stage of this Study.

Although the population figures given here are the latest from the NPC, it is essential that the LGA population figures and their distribution and composition by age and sex are kept under constant review. Without this knowledge it is impossible to plan investments in buildings and staff in any sector that relate to the actual population living on the ground they need to serve. The satellite imagery proposed for the second stage Study will form an excellent basis for this work.

### 3.3 Human Resources with Particular Reference to ICT

Computer literacy and availability are extremely low across the board in Adamawa.

Even the State Planning Commission, which ranks amongst the better off government Parastatals concerning ICT only lists 10 computer literate staff, out of a total staff of 157. The Commission is also better equipped than most with 23 PC's. (We have not had the opportunity within the short time scale of this initial survey to inquire why there is more than twice the number of PCs than computer literate staff in this particular case.) This emphasises the point that procurement and training programmes must go hand in hand. It is unsurprising that agencies that have been part of externally funded projects (e.g. the Small Towns Water Supply and Health Systems Development Projects) tend to have better ICT resources. There is a need to spread the level of ICT literacy and resource availability enjoyed by externally funded programs to mainstream agencies and projects.

Computer awareness is high. The questionnaire survey revealed that most agencies understand what they might need, and why, by way of ICT resources. Given that almost all respondents identified the need for training and staff development, there is an opportunity for the State to kill two birds with one stone by improving access to ICT and ICT training. Increasingly in business and government ICT literacy is akin to basic literacy in the past.

If the State is to develop sustainably, government must develop a forward-looking attitude to ICT and the computerisation of administrative and financial operations.

### 3.4 The Role of Finance – Targeting Investment

The current State government administration has made it clear that it is aligning its development policy with NEEDS 2 and the

Millennium Development Goals. The MDGs have a very strong focus on eradicating extreme poverty, universal basic education, reducing infant and maternal mortality, environmental protection and creating global partnerships. The eight headline goals involve these objectives and the UN has set out a series of 48 indicators by means of which government and others can measure their progress towards achieving them (See Appendix 2). In many cases, the data for these indicators are not readily available at the local or state level and proxies must be used for measuring progress towards achieving the MDGs. Achieving these goals will involve financial investment and intervention. In the medium to longer term there is need for Adamawa State to attract inward investment both locally and internationally. However, much can also be achieved and the State set on the path to achieving MDGs by better spending existing finance and boosting IGR, as has been noted earlier. Two major areas of development that will underpin any long-term effort to achieve sustainable development and MDGs are basic health and education. Both covered in some detail by the Local Government questionnaire and highlighted below.

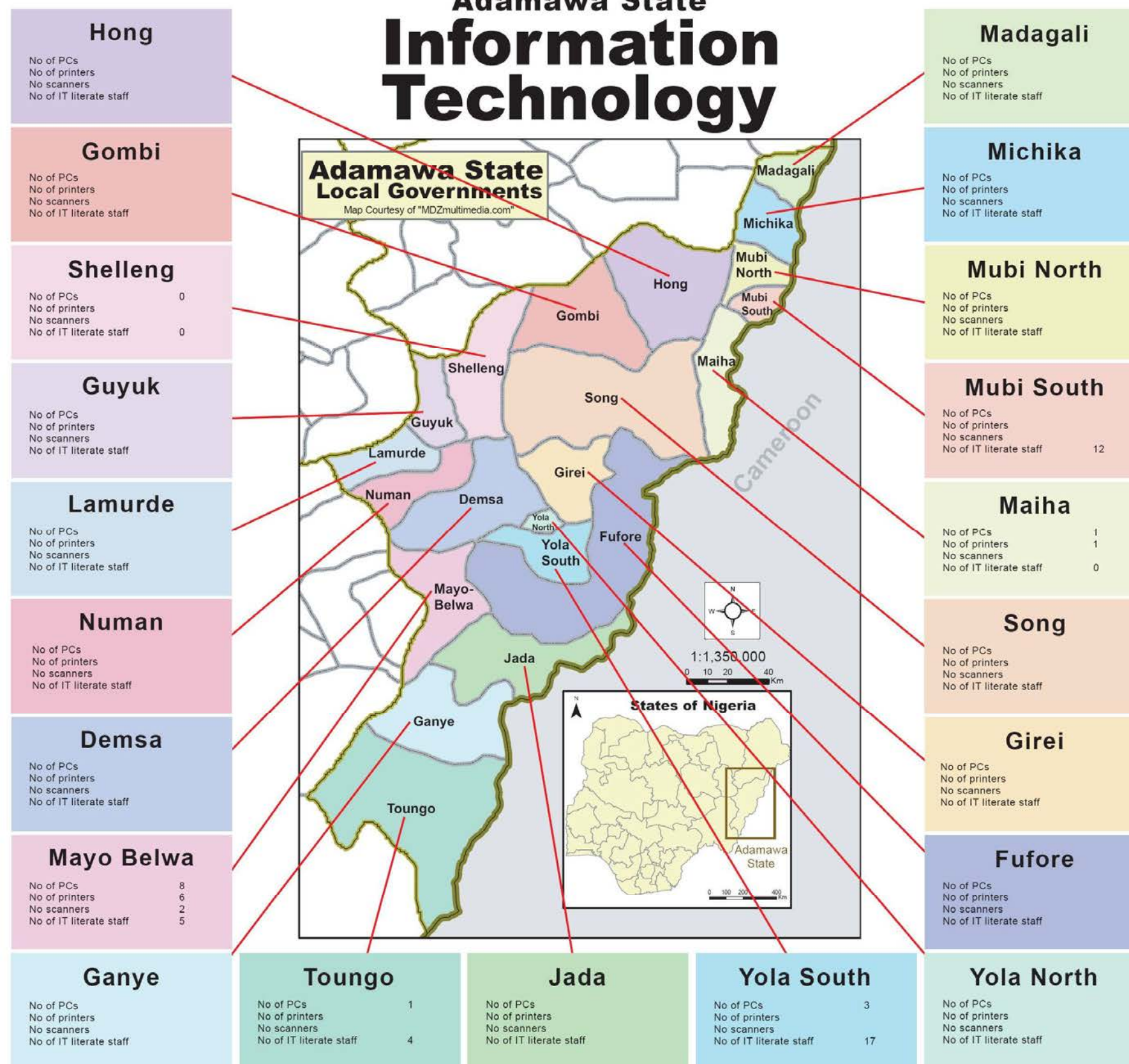
#### Universal Basic Education (see Map page 3-10)

1,616 primary schools were recorded in the survey spread across the 18 Local Governments that responded to this aspect of the questionnaire, however dozens of these schools meet under shades and temporary shelters and hundreds of others are in a poor state of repair.

Student:Teacher Ratio:

On the whole Adamawa State has a sufficient number of primary school teachers, for the number of children currently enrolled. Only Mubi-South has a student:teacher ratio over 40, which is the national standard, with an average of 47 students per teacher. However, these figures should be taken advisedly, since they do not reflect the distribution of teachers within the Local Government areas. The trend is that teachers tend to huddle around urban

# Adamawa State Information Technology



schools and shun rural postings, due to poor living conditions. So even Local Governments that have good gross student:teacher ratios will have some schools where the ratio is as low as 10:1, and others with a ratio of 200:1 (one teacher between 200 students!). One area of education investment targeting must therefore be how to attract teachers to rural postings; perhaps through the provision of basic housing attached to rural schools and higher pay.

### Student:Classroom Ratio:

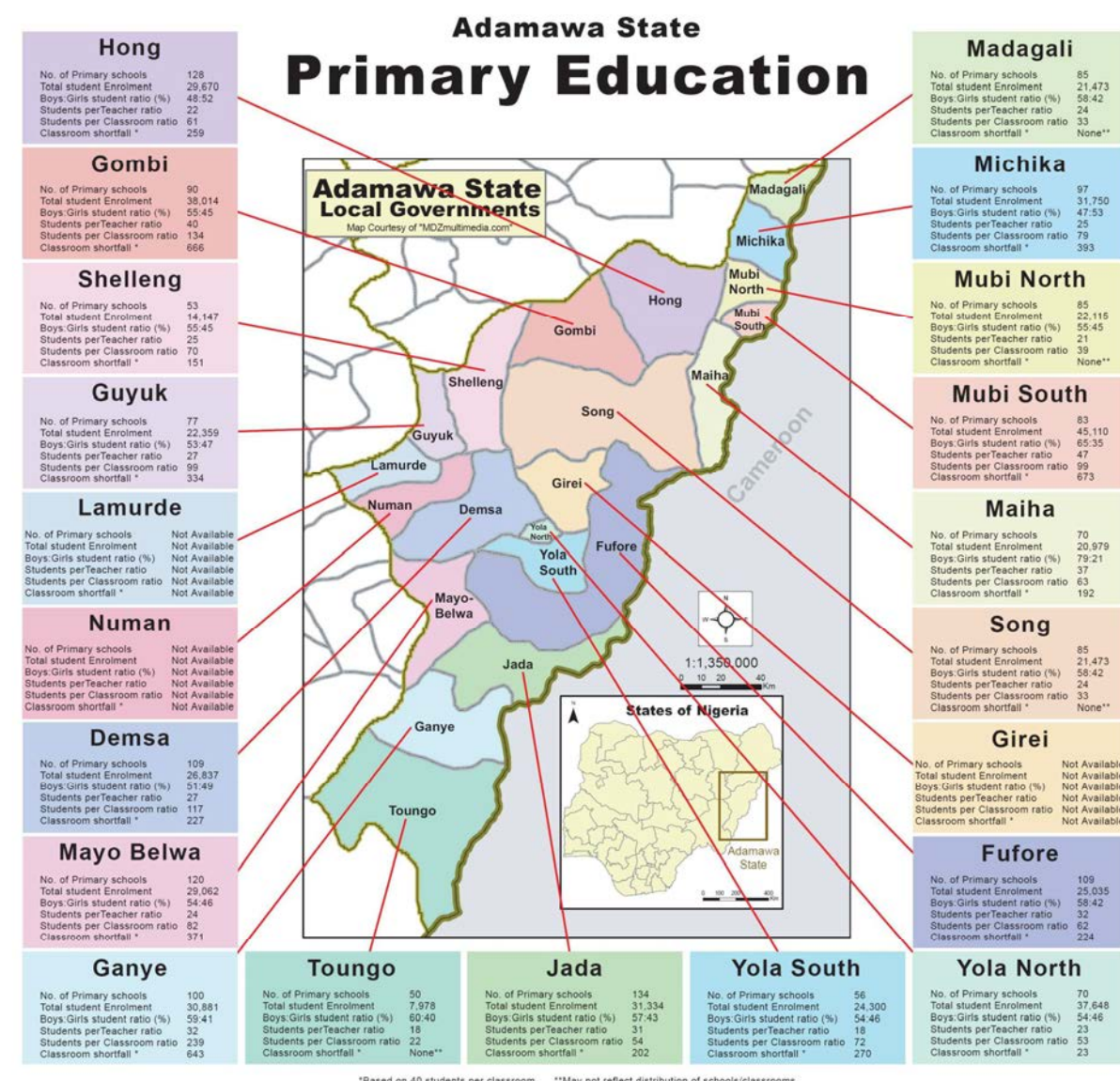
There is a need for investment in classroom building, based on the enrolment and number of classrooms currently available in Adamawa State, according to figures provided by Local Governments. Despite the building programme of the UBE scheme, in order to achieve the national student:classroom ratio of 40:1, Adamawa State requires over 5,000 additional classrooms. The classroom 'gap' (shortfall) ranges from -171 (Toungo) to 673 in Mubi-South (the negative figure implies that the Local Government has a student:classroom ratio well within the 40:1 standard). It must be noted, again, that these are broad brush figures that may not reflect distribution of classrooms within the Local Government area. So whilst Toungo may appear to have excess classrooms at first glance, some individual schools may fall below the national standard.

UBE may require much more investment, in terms of equipment and maintenance, teacher training, amenities such as water and electricity. But at the bare minimum, in order for every child to have at least basic shelter and teacher-contact, the above are the investments required.

### Basic (Primary) Healthcare (see Map page 3-11)

807 local/PHC clinics were recorded in the areas of the 16 Local Governments that responded to the relevant question. Numbers of clinics vary from 31 (Gombi) to 86 (Hong), there is also a great deal of variance in the equipment and the state of repair of these clinics.

Several Local Governments do not employ a



single Doctor, Nurse/Midwife or Community Health Officer and only 7 have 10 or more such staff on their books.

The population per PHC ratio ranges from 1,531 (Toungo) to 6,081 (Yola-South), with an average of 3,178.

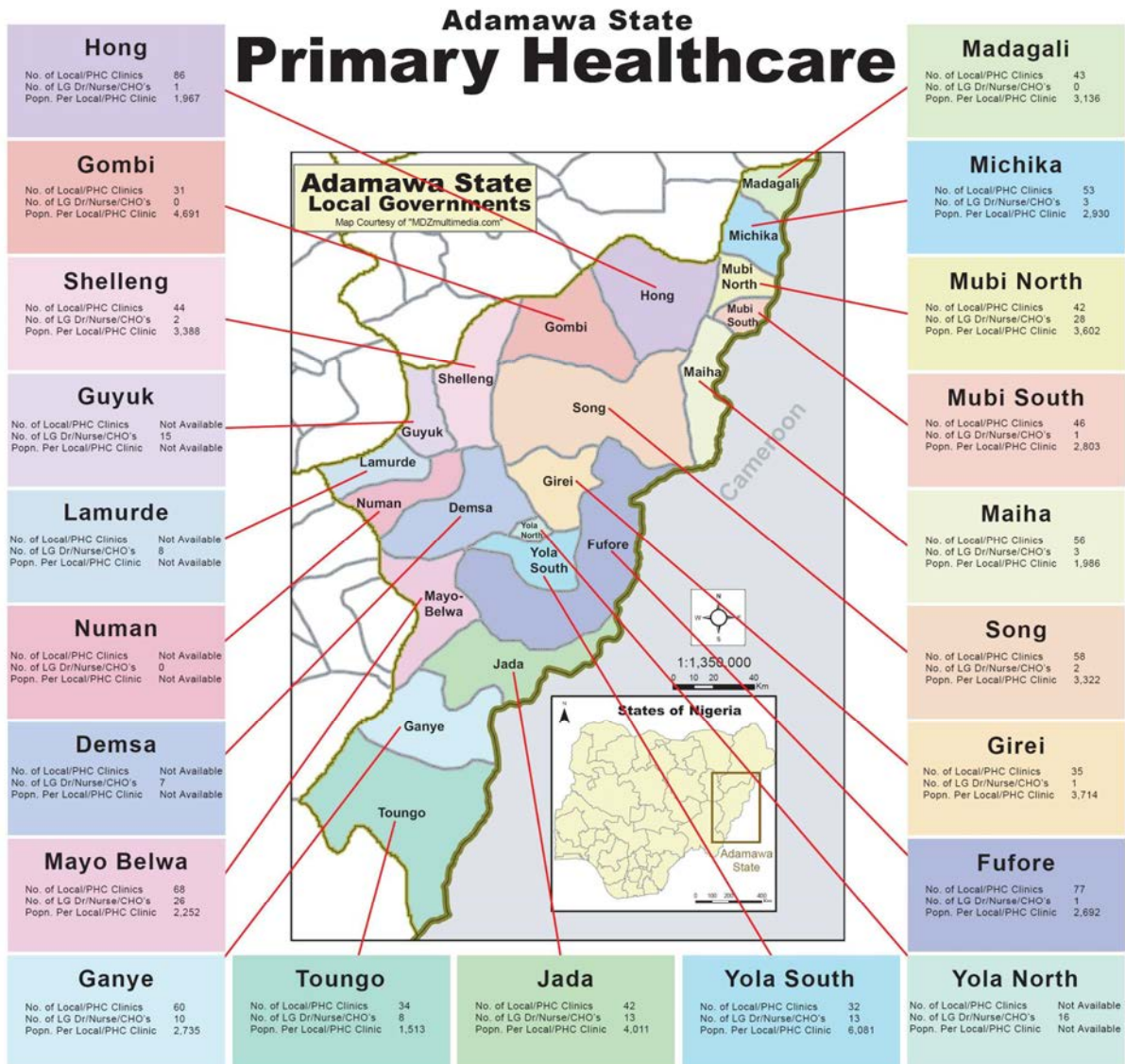
Given that Adamawa has amongst the worst rate of infant/maternal mortality in Nigeria, this is clearly an area that requires some investment. One approach might be for the Ministry of Health to agree a basic standard for the number of PHC/local clinics per population and ensure that all Local Governments meet this basic standard. The location of these

clinics also needs to be planned to ensure correct distribution, in order to meet best the needs of the people.

Another target that needs to be agreed is the number of Dr/Nurses/CHO's per population. Currently this number ranges from 5,403 (Mubi-North) to 207,287 (Fufore).

Both of these targets (i.e Population:Staff and Population:Clinic) may be pursued in a gradual and systematic manner, by first setting an easily achievable standard, then gradually raising the standard over time. For example, assuming a standard of 1 PHC/Local clinic per 3,000 head of population and 1 Dr/Nurse/CHO





per 10,000 population is agreed, then based on current available figures, Adamawa State Local Governments will need to build over 100 PHC clinics and employ over 185 additional qualified medical staff.

Once these targets have been met new, higher standards

may be agreed and set, and so on, until the entire State is adequately serviced with basic healthcare and the MDGs for healthcare are achieved.

### 3.5 iGOV – An Integrated Framework for Governance

#### Context

‘Good Governance’, as has been alluded to earlier, involves a healthy, participative and dynamic relationship between government and its agencies and communities. The missing element in much government planning and policy making is the ‘people’ element. Too often decisions and decision-makers remain aloof from the communities that are the end-users and ‘beneficiaries’ of government policy. Over the last few years much has been made of PPP or Public Private Partnership as national policy has shifted away from government being the exclusive provider of public goods and services, to a model in which the private sector plays a growing role. Several key sectors including education and communications have greatly benefited from increased investment from private sector participation.

However, one major criticism of privatisation is

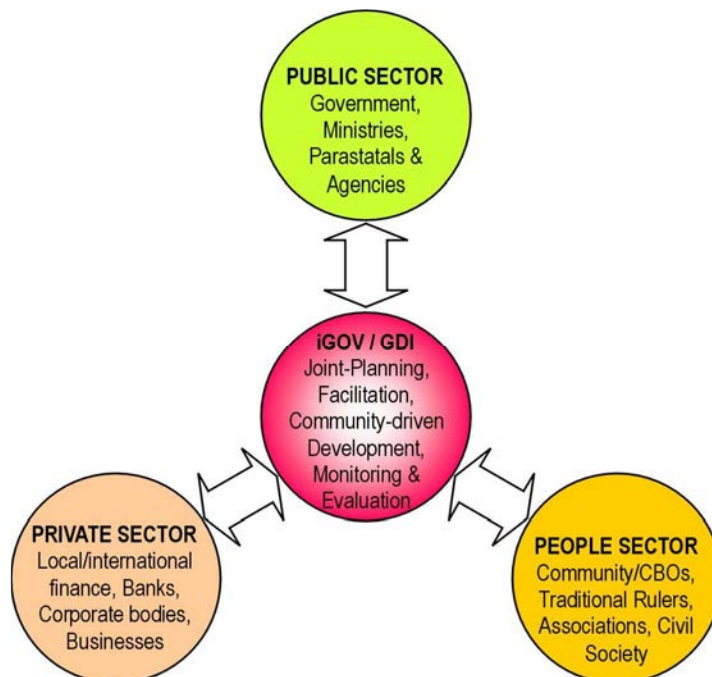
that it has hitherto lacked a ‘human face’ and tended to benefit the already wealthy, without touching the ordinary people. What is proposed here is a modified model, which whilst drawing on the benefits of bringing private capital into the provision of public goods and services, does not lose touch with the communities such reform seeks to serve. It is a more ‘people-centred’ developmental model.

Rather than PPP, what is required is PPPP or ‘Public, Private, People Partnership’. (In the international terminology, this is sometimes referred to as a ‘multi-stakeholder partnership’).

#### ‘PPPP’ Sustainable Development Model

Max Lock have always believed that by involving communities, as end-users, in the process of policy and project identification, prioritization, planning, implementation and M&E, success and sustainable outcome are more likely to be achieved.

Diagram: PPPP Model



As the diagram illustrates iGOV or the Integrated Governance Framework sits at the centre of the PPPP Model, providing a context in which good

governance can flourish by allowing government, business and communities to participate in development as

partners in progress. By this means communities cease to be mere recipients of 'development' and instead become active agents of their own development.

In practical terms at the local service delivery level the PPPP model may take the form of involving PTAs in the running and maintenance of their children's schools and allowing parents to have a say in any projects to be carried out for constructing and maintaining classrooms and other improvements. In terms of local healthcare provision, communities may be given a say in what staff and services local clinics provide to them. By involving and engaging communities, local authorities and the private sector contractors in the processes of project identification, execution and management, a more holistic and sustainable development is likely to emerge.

At the policy making level, there is a role for traditional institutions and community representatives in every aspect of government from land management and urban planning to the administration of justice and maintenance of public physical assets such as roads, bridges, electricity and water.

### The Joint Account and Local Government Procurement

The Joint Account (JAC) by which Local Government statutory allocations are channelled via the State government is a much-debated issue nationwide. In general nationally most Local Governments complain that the State governments make heavy deductions and many Local Governments do not receive up to 50% of their allocation. The Local Government's point of view is that they are denied autonomy and the right to plan their development, whilst the State government's argument is that they wish to ensure that funding is not mis-directed.

The JAC is in fact an opportunity for joint development planning, but it will need to be reviewed in terms of its operation and management. If national planning is to indeed flow down to the local level, a 'joined up' approach is needed and the JAC may represent a good forum to achieve this. In order for this concerted approach to be realised there is a need to have a more open and accountable system. One in which greater financial autonomy for the Local Governments is traded for greater accountability.

Moreover, if sustainable development and MDGs are going to be achieved then there will need to be across the board agreement on procurement priorities, project management and M&E. The Local Government Workplans introduced by the current administration therefore represent a step in the right direction. In order to make Workplans more effective, however, there needs to be a guiding framework, supported by sound policy (and perhaps new legislation), which will ensure there is a focus on agreed developmental targets, consistency and fairness of application. One means of achieving this is by introducing a 'Commissioning Framework' for Local Government procurement.

### Local Government Commissioning Framework

#### Definition of CF

A Commissioning Framework (CF) provides an agreed framework for development within which public goods and services will be strategically planned, commissioned and procured.

A CF is therefore a means of ensuring that national and state development priorities are carried through to the local level and that agreed development targets and objectives are adhered to in an accountable and consistent manner.

#### Elements of CF

Whilst there is no fixed design for a CF there are a number of elements, which might be useful in the context of Adamawa State and the JAC system operating in Nigeria, in order to create a framework that fits with the existing policy and legislative realities.

- **Commissioning Policy** – to guide, project and service delivery through **identification and prioritization**. In

other words how to determine what public goods and services are to be procured.

- **Procurement Policy** – or ‘**due process**’ in procurement. How to procure public goods and services; standards for advertising, bidding, pre-qualifying and winning contracts.
- **Contract Management Policy** – this will cover the **supervision and execution** of contracts. Ensuring that contractors and service providers deliver on Time, on Specification and within Budget.
- **Performance Management Policy** – this is the **M&E** component of the CF. It involves collecting data on outputs, outcomes and agreeing key performance indicators.

The CF is a policy instrument that should be agreed with State Local Governments and Communities’ input, which may then form the basis of policy for operating the JAC to promote the sustainable development of Adamawa State.

### iGOV – an integrated framework for Good Governance

The iGOV concept seeks to draw together, in an integrated and rational manner, the suggestions and analysis outlined in the preceding paragraphs, namely;

Good Governance as a mutually accountable relationship between the government and the people of Adamawa State

The need for an economic development model (PPPP), which involves communities and civil society as well as the business and government sectors, so that policy is seen to come from within, rather than being imposed from above.

A Commissioning Framework to guide and regulate State/Local Government budget-setting, procurement, monitoring and evaluation

In order for iGOV to become a tangible policy tool there is need for a data and economic/physical planning infrastructure, which will provide information for decision making, data for analysis and relate these geographically to specific areas and communities. A large part of the success of iGOV

rests on stakeholders’ ability to monitor, and where necessary adjust, investments in primary infrastructure and service delivery.

### 3.6 Conclusions: The Need for a Networked GDI

A Geo-Spatial Data Infrastructure (GDI) is needed to facilitate the practical development of a PPP model, based on which an effective Commissioning Framework (CF) can be created to articulate and implement a sustainable development plan for Adamawa State.

Using geographic information systems (GIS) and the benefits of regularly updated data on health, education, urban management, agriculture, natural resources, and physical infrastructure, an effective system can be put in place to make iGOV a reality.

### GDI Description

A GDI is an ICT-based system for physical and economic development planning, M&E, policy and investment decision-making. It allows maps and images to be overlaid with information from databases for analysis, urban, regional and economic planning.

### Some practical applications of a GDI

The physical infrastructure of a GDI (i.e. computer hard and software, internet, training, suitable accommodation, power back up) will provide Adamawa State with direct and indirect benefits. As a result developing a GDI is a value-adding strategic investment, whose uses and benefits include;

- Cadastral and Lands planning
- Financial planning/tracking
- Urban and Regional planning
- Road standards, maintenance

- and management
- Workplans and infrastructure investment monitoring
- Education resource management
- Health resource management
- Internal communications
- Project and asset management
- Training, capacity building
- Database management
- Electronic archiving
- Procurement and inventory management
- Agricultural and natural resource management
- Revenue and tax monitoring and planning
- HR allocation and management



This is an example of high definition satellite imagery of the centre of Gombi, which town along with Song has such images freely downloadable from the Internet. For all other towns in Adamawa this quality of image would have to be ordered, but the total cost for all towns would be far less than the cost for a single small town in traditional line mapping, which would be out of date as soon as it was printed. The images can be printed accurately to any given scale. The white bar between the red dots represents approximately 100 metres.

### 3.7 Visual Assessment of 6 Towns

#### Overview

The Visual Assessment is based on visits made to all LG headquarter towns in the course of data collection for this report. Researchers were shown around the towns by knowledgeable staff of the LG, so to some extent these were 'guided tours'. Having explained the purpose of the visit, usually the Supervisory Councillor (Works) led the MLCN researcher around, although in some cases the Chairmen themselves did so.

#### Basic Infrastructure

The impression formed of the towns (in general) is a bit grim, but not bleak. Economic activity is severely restricted by the lack of basic, functional infrastructure, such as roads and drainage, electricity and water supply. However, as always in Nigeria, people get on with the hustle and bustle of making a living, despite the obstacles. With the notable exceptions of Yola, Mubi, Numan and other large townships, other towns still have a weekly market, with limited trading activity day-to-day.

#### Eco and Environmental Threats

The recent heavy rains took their toll on most townships, particularly those like Gombi and Hong, which lie at the foot of hills

Max Lock Consultancy Nigeria

and Mubi lying in a major river valley. The lack of adequate drainage and protection for roads and bridges, together with an absence of Solid Waste Management pose the most immediate public health and ecological and environmental threats. The prospect of climate change will continue to adversely affect the rural economies and put further pressure on urban centres, as rural communities drift towards the urban centres to seek livelihood.

#### Healthcare and Education

Primary schools in townships are varied in their size and state of repair. On the whole teachers are more willing to accept postings in urban areas over rural schools. This means that student:teacher ratios are much better in the towns, at the expense of rural areas. Redressing this balance is where Government intervention is required urgently (see Chapter 3: Governance).

Primary Healthcare (PHC) provides the mainstay for healthcare delivery in most Local Government Areas even though the PHC Clinics are mostly poorly staffed and in a state of disrepair. There are a number of Cottage Hospitals in the LG headquarter towns that are well maintained. None the less most Local Governments do not employ sufficient skilled medical staff at the level of Nurses, Midwives or Doctors to supervise

the PHC Clinics.

#### Urban Planning

With the previously noted exception of the major towns in Adamawa State, LG headquarter towns show a distinct lack of planning, which even if short of full 'Master Planning' would create ordered public spaces to promote the development of the innate commercial and micro-economic 'buzz' that characterize these townships.

#### Finance and Administration

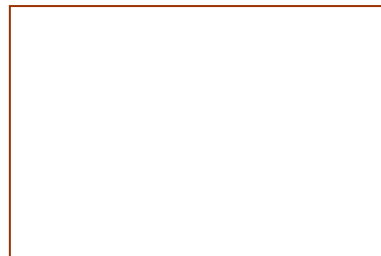
The planning and development of townships so that they can serve as local hubs for the wider economic development of their LGAs will need a partnership of the State and Local Government authorities. Given the degree of infrastructural investment required, the need to boost alternative sources of Internally Generated Revenue, must receive urgent attention. Townships cannot grow sustainably based on Federal Government Allocations alone. By improving revenue collection (and expenditure), the local urban economy receives a two-edged boost; local people benefit from the reinvestment in their community, and governance and accountability are improved across the board. This is a key strategy for achieving sustainable urban development in Adamawa State.

### 1. Gella Town, Mubi-South LGA

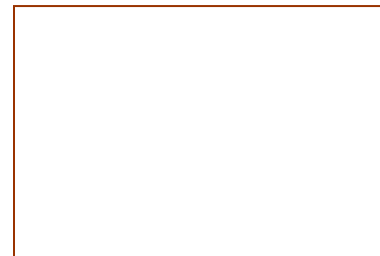
Although Gella is the official LG HQ, the Mubi-South township remains the economic nerve-centre of the LG. Gella itself is a very small settlement (little more than a village, in fact), with almost no water supply at all. In the dry season tankers bring potable water from Mubi to supply the town. The blank photos below reflect the status of Gella, with no 'Commercial Spine' as such, apart from the weekly market, no built Main Market or Motor Park and so on. The Mubi-Gella road is currently under construction and will bring the town with 15 minutes drive of Mubi. This road will be the town's economic lifeline.



Administration – LG Secretariat



Main Commercial Spine



Other Economic Activity



Main Market



Motor Park



Solid Waste Disposal



Primary Healthcare



Primary Education



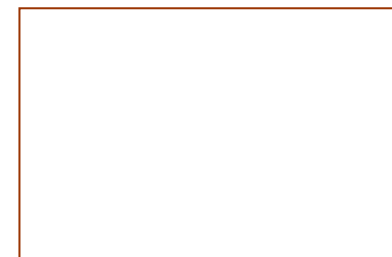
Urban Scene



Water Supply



Basic Infrastructure

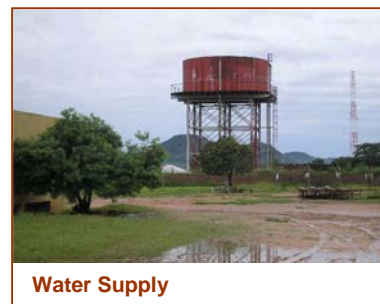


Eco/Environmental Threats

3-17

## 2. Hong Town, Hong LGA

Hong is a largely linear settlement running along the Federal trunk road at the foot of hills. Although the locals tend not to farm the hillsides, there is a threat of erosion from run-off water from the hills and need for channelization. For water the town depends on wells and other open sources, but there is an abandoned State water project, which is (reportedly) 75% complete. The overhead tank and borehole were constructed (see photo 10 below), but completion and final commissioning never took place. This project could be explored for completion and commissioning.



3-18



### 3. Mayo-Nguli Town, Maiha LGA

The Federal highway linking Maiha to the Mubi commercial hub is almost complete and will help accelerate the town's development. Potable water is a key issue, with most of the population depending on the local stream for drinking water, even in the rainy season. Almost none of the township roads are surfaced, even around the market. This means that the otherwise capable Local government staff face an uphill task, trying to administer town development.



Administration – LG Secretariat



Main Commercial Spine



Other Economic Activity



Main Market



Motor Park



Solid Waste Disposal



Primary Healthcare



Primary Education



Urban Scene



Water Supply



Basic Infrastructure



Eco/Environmental Threats

3-19

#### 4. Mayo-Belwa Town, Mayo-Belwa LGA

Mayo Belwa has been a LG since the creation of Gongola State in 1976. It has a landmark ovoid water tank, which has recently been rehabilitated by the LG and now supplies water to the town. MB is suffering from an ecological threat due to the natural diversion of River Jamtari, which has split into three channels and now causes flooding to homes and farms. The LG in the past tried unsuccessfully to build an embankment to divert the river.



3-20

**5. Mubi-North Town, Mubi-North LGA**

Mubi is a thriving commercial centre and a focal market for livestock and agricultural marketing, as well as cross-border trading with Chad and Cameroon. The overwhelming impression of the town is formed by extremely poor township roads, relative to the thriving commerce, which hamper economic activities. On 12<sup>th</sup> August 2007 the local river (Yazam) that runs through Mubi town experienced flooding not seen in a generation, which affected up to 6,000 homes across the LGA.



**Administration – LG Secretariat**



**Main Commercial Spine**



**Other Economic Activity**



**Main Market**



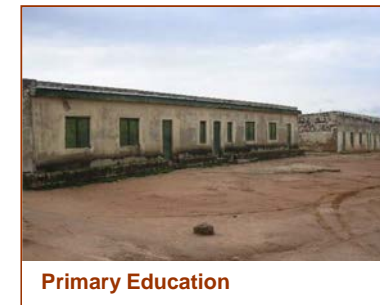
**Motor Park**



**Solid Waste Disposal**



**Primary Healthcare**



**Primary Education**



**Urban Scene**



**Water Supply**



**Basic Infrastructure**



**Eco/Environmental Threats**

3-21

### 6. Song Town, Song LGA

Lying in the shadow of the Three Sisters 'mountain', Song is on the Federal trunk road between Jimeta and Mubi, which forms the town's main street. The LG Secretariat and main market are off this main road, as is the Main Commercial spine, which is also tarred. The recent rains have taken their toll on Song, in particular the town's main (wooden) bridge, which links about 20% of the settled area, was washed away, leaving only the concrete pillars and steel girders. Generally, the town bears the effects of the heavy rains, by way of erosion threats, as it sits at the foot of hills.



Administration – LG Secretariat



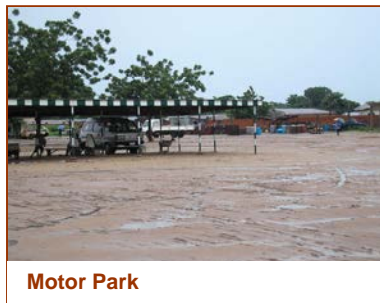
Main Commercial Spine



Other Economic Activity



Main Market



Motor Park



Solid Waste Disposal



Primary Healthcare



Primary Education



Urban Scene



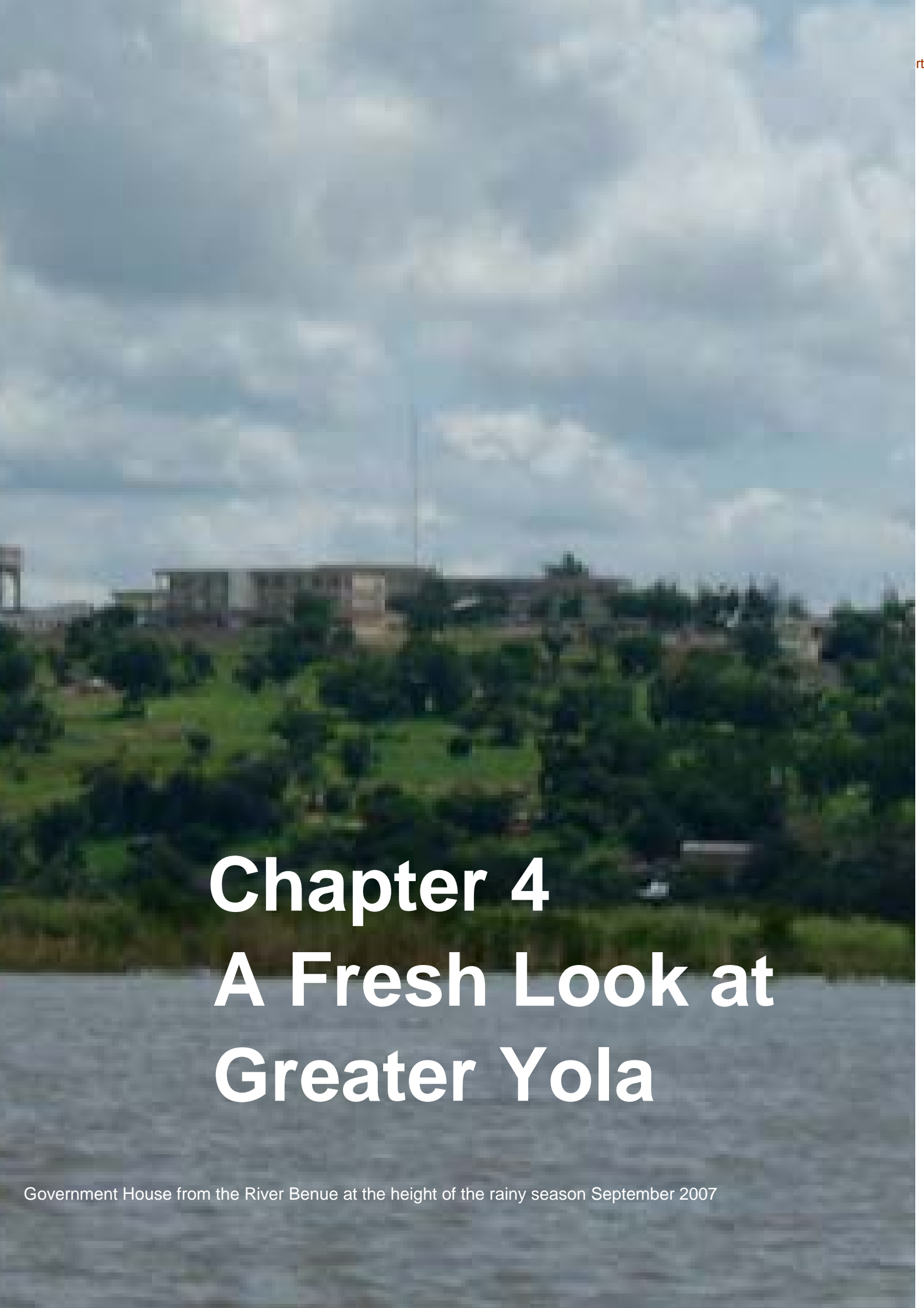
Water Supply



Basic Infrastructure



3-22



# **Chapter 4**

# **A Fresh Look at**

# **Greater Yola**

Government House from the River Benue at the height of the rainy season September 2007

## Chapter 4 – A Fresh Look at Greater Yola

### 4.1 A Fresh Look at Greater Yola

In 1976 the Max Lock Group presented a report on the planning of Greater Yola as the State Capital of the newly created Gongola State, now Adamawa State. Michael Theis, Saadu Dahiru and Samuel Adenekan who are now Directors of Max Lock Consultancy Nigeria Limited were closely involved in that original plan-making process.

In the following thirty years much development has taken place in the City and by and large it has followed the original recommendations made in the 1976 Report.

On revisiting the City thirty years later one is at first impressed by the way development has taken place and been controlled. The main roads are dual carriageway, free of encroachment (when compared to other Nigerian towns), well

kept and landscaped, although in many circumstances the road surfaces themselves have sadly deteriorated.

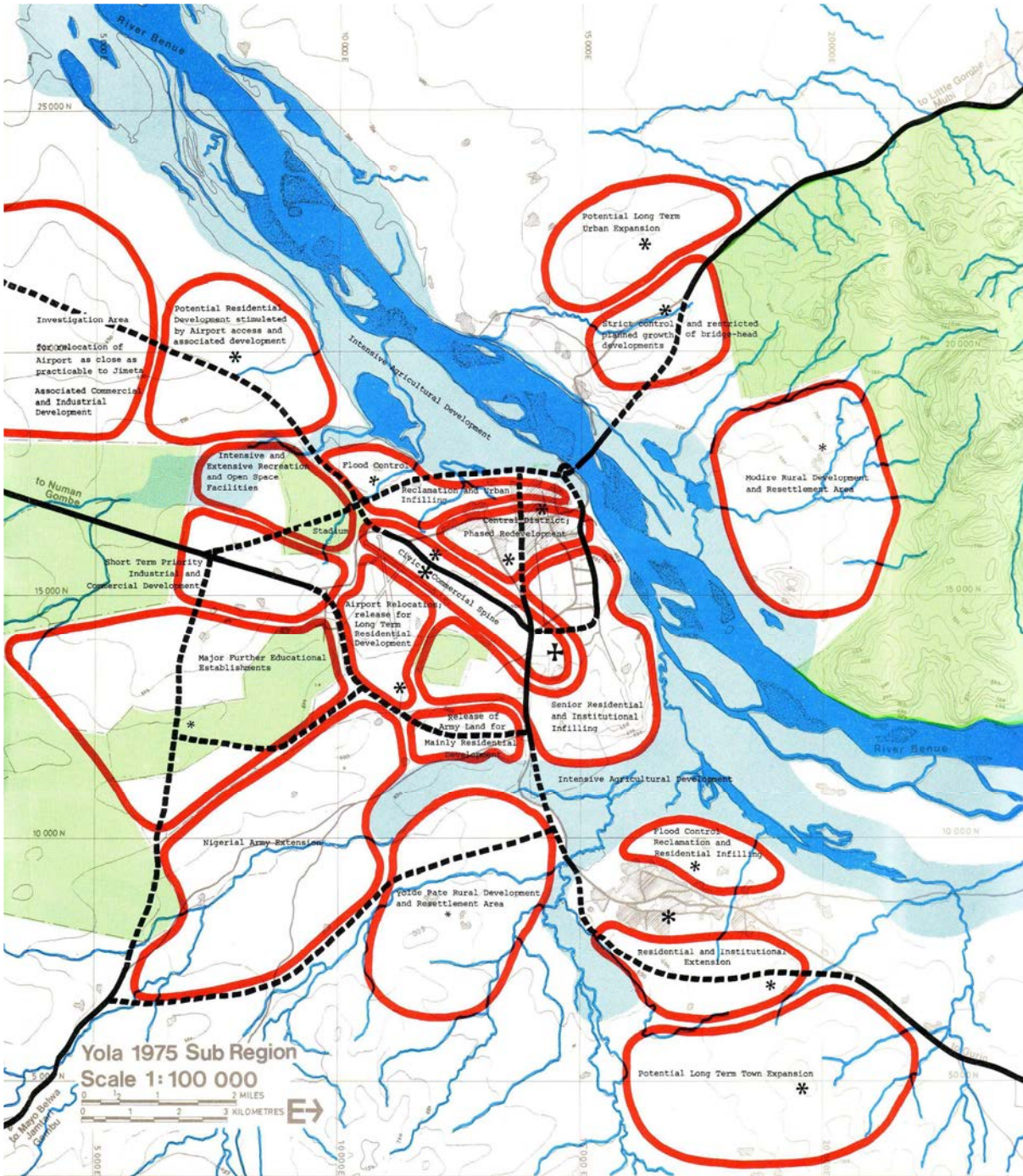
The impression is of an ordered city but one that has lost much of its attractive and climatically alleviating tree planting. The 'green lung' quality of the tree-lined avenues has been destroyed by inconsiderate road widening and non-replacement of trees.

Much prime land remains vacant or with a single old building sitting in the middle of a huge plot. Half empty underused government and parastatal offices and yards are many and conspicuous.

A considered review of government owned and occupied land would reveal the optimal allocation of space for government use and that which may be freed up for private and corporate property investors.

#### The main road outside Jimeta Main Market





# Structure Plan

## CONSTRAINTS

The Benue has carved a wide sandy flood-plain between rolling hills to the north and a steep cliffed plateau; itself bounded by tributary streams that spill into wide areas of flood land precluding development and dividing the settlements of Yola and Jimeta. Sporadic outcrops of rock frustrate infrastructure development.

Forest reserves offer the basic domestic fuel supply and so need to be within easy reach of the town. Local crop production is to be encouraged in the rich floodland and rural resettlement areas.

Land available for development has been restricted by large areas given to the Airport, Nigerian Army and Institutions. The Plan anticipates the release of parts of these allocations. Jimeta's location takes advantage of the river crossing and regional routes. Yola Town being on a cul-de-sac to the Cameroon border has only a single tenuous road link.

The Structure Plan is the overall framework for the town's growth. It illustrates the constraints and opportunities for development.

TOPOGRAPHY	TOPOGRAHY
RIVERS	RIVERS
FLOODABLE LAND	FLOODABLE LAND
FOREST RESERVES	FOREST RESERVES
DEVELOPMENT AREA	DEVELOPMENT AREA
EXISTING + PROPOSED ROADWAYS	EXISTING + PROPOSED ROADWAYS

## OPPORTUNITIES

The topography substantially dictates the direction and pattern of growth. The proposed structure of the Capital thus reflects a series of separate but inter-connected nodes located by the river crossing and existing settlements. Given good filtration plant the River Benue represents an abundant supply of drinking water.

The mature tree-lined roads give an indication of how the rolling urban area should be planted. The proposed landscape policy will afford the inhabitants shaded comfort and a pattern of open space for recreation.

Development Areas have been structured to balance economic resources with social facilities. The major community centres are shown thus: \*

Regional routes have considerably influenced the proposed road hierarchy: the new roads will integrate proper flood control and drainage thereby reclaiming large areas and opening up other new areas for development.

2.0.2

This plan is reproduced from the Max Lock Greater Yola Report 1976 and shows the broad strategy that was then being proposed for the city. Much of it is still valid and the following pullout pages indicate the current development possibilities for further detailed study.

### A. The North Western Approach Route

Land along both sides of the Numan Road has been partially developed with much needed commercial activities giving rise to employment opportunities. To the north and south of this frontage development much sporadic and un-integrated development has taken place – both official and informal on land that is low-lying and not always suitable for building. This is obvious in the many buildings showing severe rising damp.

The whole area north and south of Numan Road should be subject to detailed ground level, building, land allocation and agricultural potential survey and mapped on to high definition satellite imagery with a view to a comprehensive land use plan for development control.

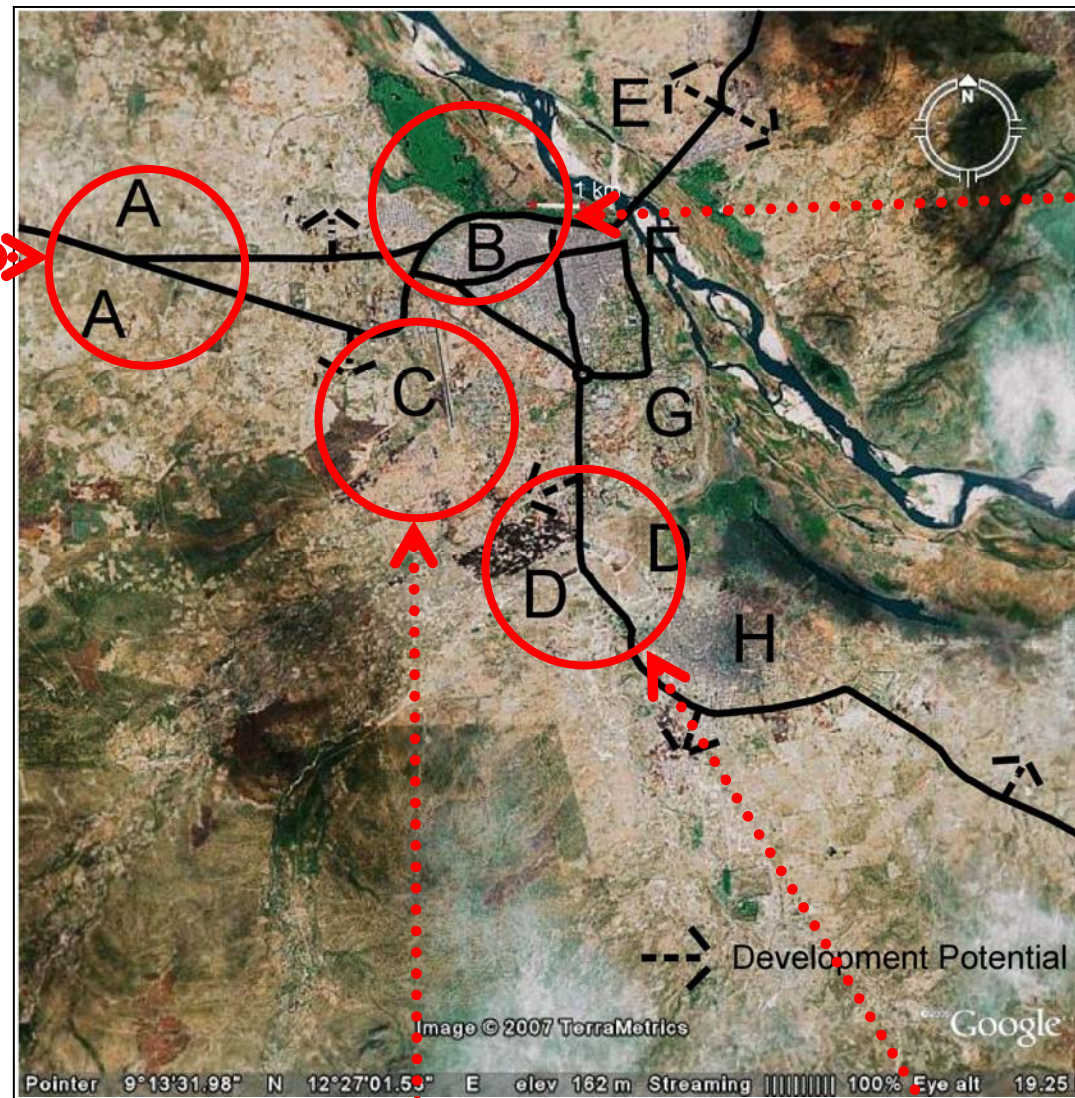


and revocation of some of the major land allocations that have not been implemented should be considered along with re-allocation and potential land sharing to create sustainable low income sites and services development schemes. The recent relocation of the motor park to this area will need special consideration in its management, operation, access, convenience and efficiency.

The land further west of the junction of the northern by pass line to the Jimeta Bridge with the Numan Road – both north and south of the road – was recommended in the 1976 plan for agriculture/forest reserve. This whole area should be the subject of a detailed soil and agricultural potentiality survey and plans drawn up accordingly.

The northern by pass route should be upgraded for its full length and consideration given to its detailed alignment to give a good through connection as well as being the primary route to serve land that is determined to be suitable for urban development throughout the whole northern development area.

A 'Gateway' to Greater Yola Development Zone, similar to that suggested for the northern, Mubi, approach route should be established with immediate affect between the existing 'Welcome to Yola' Gate and the by-pass junction. The good quality of development on this and the northern approach road should be carefully encouraged and monitored and instil a 'pride of place'.



### C. The Airport

The upgraded airport was not located on the higher ground to the north west of the City as recommended in our 1976 report, with the result that the land occupied by the old airstrip and the new runway south of it have blocked the natural opportunity for urban, and in particular concentrated commercial, development in that prime and accessible location.

Not much can be done about this situation in the short term, however a full investigation can be carried out to determine means of gaining access from the rest of the existing urban area to the south and west of the new runway. Negotiations over land allocated to the Federal Ministry of Aviation should take place in order to establish a trial EPZ for agricultural produce processing and shipment closely related to the airport to reduce double handling of produce and a possible release of land around the old airstrip for essential central Jimeta commercial development.

The Airport Restrictions map on the back page of this section shows the severe building height restrictions in place over the major part of the best developable land in Jimeta. On the highest points there should strictly speaking be no buildings over one storey and over most of the area coloured blue the building height limits should be no more than four storeys. Freedom from this restriction would release huge increases in development value to the commercial heart of the City.

### B. The Jimeta Urban Area

This high density residential and commercial area has changed little over the past years. It is based along both sides of 'Main Street', which is largely commercial in character with small single storey lock up shops and some more substantial storey buildings. It has extended northwards to the causeway serving the Jimeta Bridge and southwards up the hill towards the GRA. Informal road links have been made up the embankment of the causeway. (See also the Southern End of the Jimeta Bridge above). The bottom of the causeway on the town side has become an informal depository for garbage.

It is the commercial heart of the capital with the main Market currently under reconstruction and a new Shopping Complex consisting of terrace blocks of lockup shops and stalls and storey buildings with office accommodation. Trading spills out over the main dual carriageway roads serving these areas. Little investment has taken place by landlords throughout this area although there are some individual cases of substantial investment on individual plots despite the insalubrious surroundings. The maintenance of infrastructure such as road surfaces, storm and wastewater drainage and water supply is minimal although a lot of the basic infrastructure like tanks, stand pipes, culverts and drains are there but out of use or clogged.



The road, water supply and surface drainage systems need to be surveyed and mapped on high definition satellite imagery and then given a workable hierarchy. Improvement and maintenance programmes should be set up accordingly with community participation.

Development control should be based on achievable standards and take into account the need for many people to develop and improve their plots and buildings incrementally in terms of affordable materials and space standards. Mixed use of residential and commercial should not be discouraged. If such development is unacceptable to neighbours they will do something about it and then could there be official intervention.

### D. Major Land Allocations between Yola and Jimeta

The most striking element of the Capital is the clear distinction between Old Yola and Jimeta – both of which now have separate Local Governments, a matter discussed later. The Opportunity by the Army and FCT releasing some of their land for development – much of it at very low density – has been realised.

Further land release based on need should be considered and a tightening up of the already developed low density housing and increased density in new layouts implemented. The opportunity for a south western by pass route as shown in the Proposed Land Use Plan should be maintained.

The low lying land between the towns has remained free of development and should remain this way. The natural constraints placed on development by low lying floodable land is shown on the map on the back page of this section. We noticed that an agricultural irrigation scheme in the area is being developed. This should be encouraged but ensuring that it takes into account local farming ownership and practice through extension training and marketing opportunities for the expected and improved productivity. This could be linked to the opportunities of an EPZ as discussed under the Airport

### The Opportunities

Many of the Opportunities discussed in the original report have been taken up over the years although some have been missed or ignored. They are looked at again here in conjunction with the Structure Plan, which is reproduced on the opposite page.

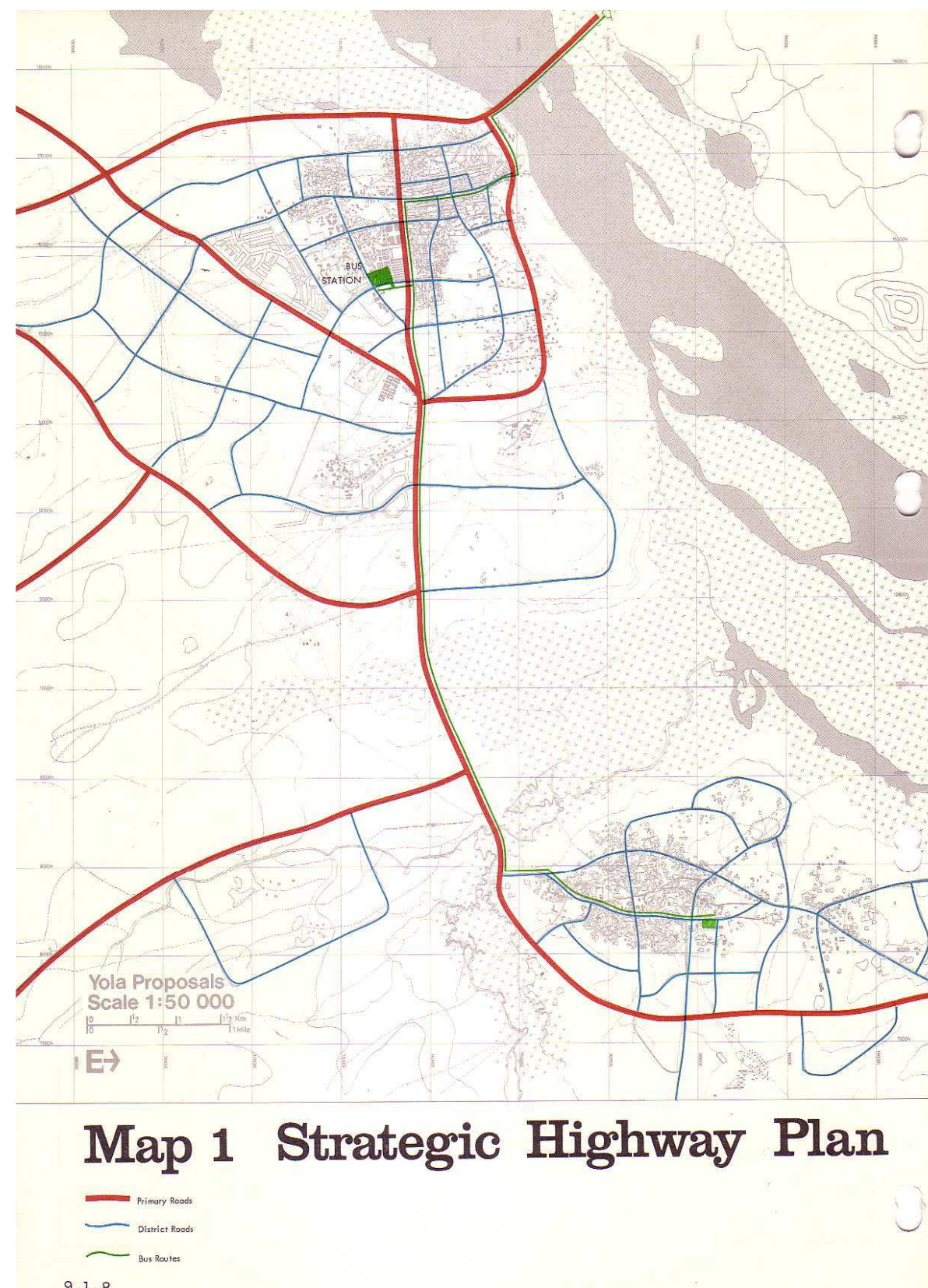
These are first impressions only and should not be taken as final conclusions. First impressions can often be misleading. There is no substitute for up to date data as a basis for proper decision making. Survey must come before Plan.

These pull out pages show the earlier recommendations, a discussion on the extent to which they have, in general, been followed and immediate actions that should now be followed so that the Capital can make its full contribution to the future of a Sustainable Adamawa Development.

The opportunities as originally outlined are still valid today and many have taken place in any case. They are not given here in any specific order of priority but more as a preliminary tour round the City.







This map is reproduced from the Max Lock Greater Yola Report 1976 and shows the strategic highway plan for the city propped at that time. It has been implemented for the most part and serves the city well. Its future planning will need careful consideration in line with sustainable levels of development. As can be seen from the photos on the opposite page (4-5) taken at random around midday on a normal work day, much of the network has plenty of spare capacity for future traffic growth which will be systematically monitored under the proposed GDI.

### The Primary Road Network

The development of the road plan has taken place according to the 1976 Max Lock plan. It is based on the building of Jimeta Bridge over the Benue River and the causeway leading up to it, which skirts the northern boundary of the urban area, and links the two settlements of Yola and Jimeta. The hierarchical network of primary and district roads has opened up new areas for development and eased the movement of vehicles throughout the urban area.

Not all these routes need to have been initially built as dual carriageways. The road reservations could have been secured but the roads themselves could have been more economical single carriageway construction thus saving on investment before it is actually needed and also on the costs of maintenance. Road capacity (i.e. width related to the volume of traffic) should be related to the existing and that forecast from regular traffic counts. Currently the impression is that the primary road capacity throughout Greater Yola is much underused. The photos were all taken in the middle of a normal working day.

There has been a deterioration in the road surfaces on many of the routes. This situation needs to be regularly monitored and a regular programme of maintenance initiated. The fact

that so many routes have deteriorated so soon since construction indicates that quality control of the initial contracts was not as good as it could have been. To leave things as they are is not a cost to government but it is a huge cost to the community at large in vehicle damage, movement efficiency and pollution.

Traffic surveys should be initiated and based on them, consideration should be given to classifying all roads in the urban area by type and carriageway width according to current and projected and monitored use i.e. fitting the design to the likely needed capacity. This will reduce both construction and maintenance costs allowing more useful road length for one's Naira.

Ceremonial Ways would need to be taken into account. The road hierarchy of Primary and District roads as given in the plan should be maintained as reservations for future widening when traffic levels warrant it. The original Strategic Highway Plan from the 1976 Report is given on page 4-4.

The two north south primary roads running through the existing Jimeta town should be properly linked to the Jimeta Bridge causeway.



## The Administration

There is currently a good deal of confusion of responsibility and overlap in the administration of planning, urban management and maintenance in the Capital City between the Ministry of Lands and Survey, the Ministry of Works and Housing, the Ministry of Environment and the Adamawa State Urban Planning and Development Authority (ASUPDA).

By law the ASUPDA is a planning law and regulation implementing body and in charge of all urban development activities in the State. It operates within a defined radius of an urban centre – often up to 30kms.

An organization of professionals such as ASUPDA is a valuable and experienced resource and should play an essential role in the urban management of the Capital City. Our initial thoughts on this highly complex issue are given here and should be considered only as a basis for further study and discussion leading to definitive roles and responsibilities.

- A detailed study should be carried out so that the administrative functions of planning, controlling and day to day management of the Capital City can be carried out in an efficient and effective manner with the participation of its citizens and other established authorities.
- In the immediate and short term ASUPDA should be given the resources to carry out and develop its urban management functions over basic infrastructure maintenance such as roads and drainage, water supply and disposal, refuse collection and disposal, street lighting and cleaning and tree planting in cooperation with responsible parastatals and the LGAs involved (in this case Yola South, Yola North, Girei, Fufore and Demsa)

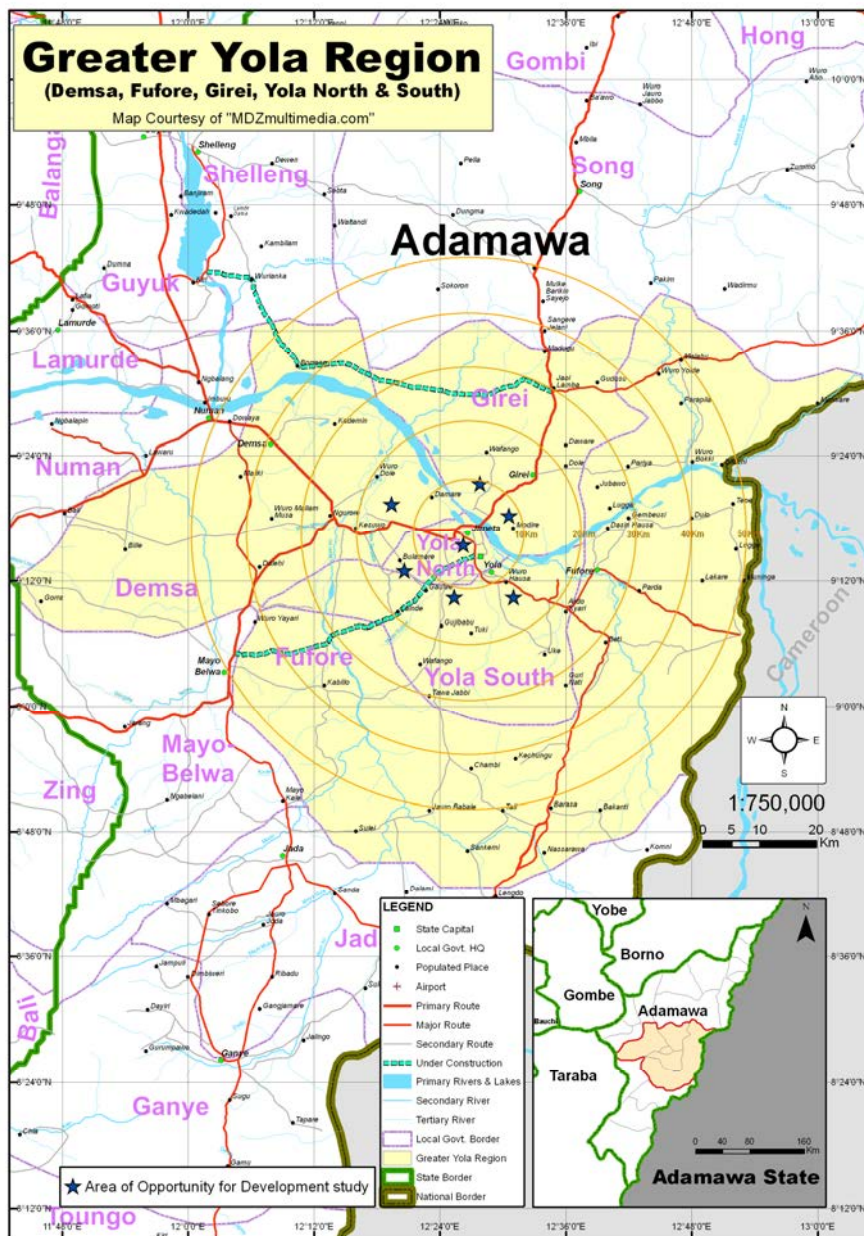
that fall within the influence of Greater Yola.

- These roles should be clearly defined and constituted and should develop and expand to cover and integrate all the urban services essential to the working of a State Capital City.
- From experience we have questioned the establishment of definitive geographical boundaries for an urban area where a number of Local Authorities are already established and particularly an arbitrary one such as a given radius. This inevitably leads to border development taking place in areas outside the jurisdiction of the authority in charge of the urban area.
- The approach should be explored of having a Joint Urban Management Policy Committee consisting of representatives of all the LGAs as well as interested Ministries and Parastatals possibly with an independently appointed, suitably experienced Chair and the General Manager of ASUPDA as Secretary. Initially this Committee would oversee and ensure the proper working of the Greater Yola Urban Management functions of ASUPDA in the 5 LGAs of the Greater Yola Region.

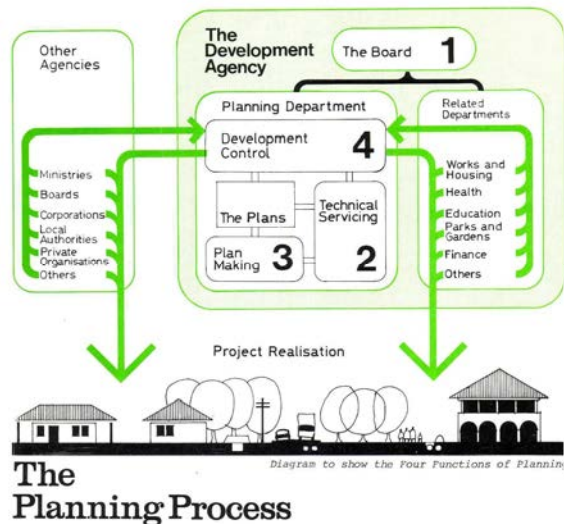
It really is first and foremost a question of making what one already has work effectively and efficiently.

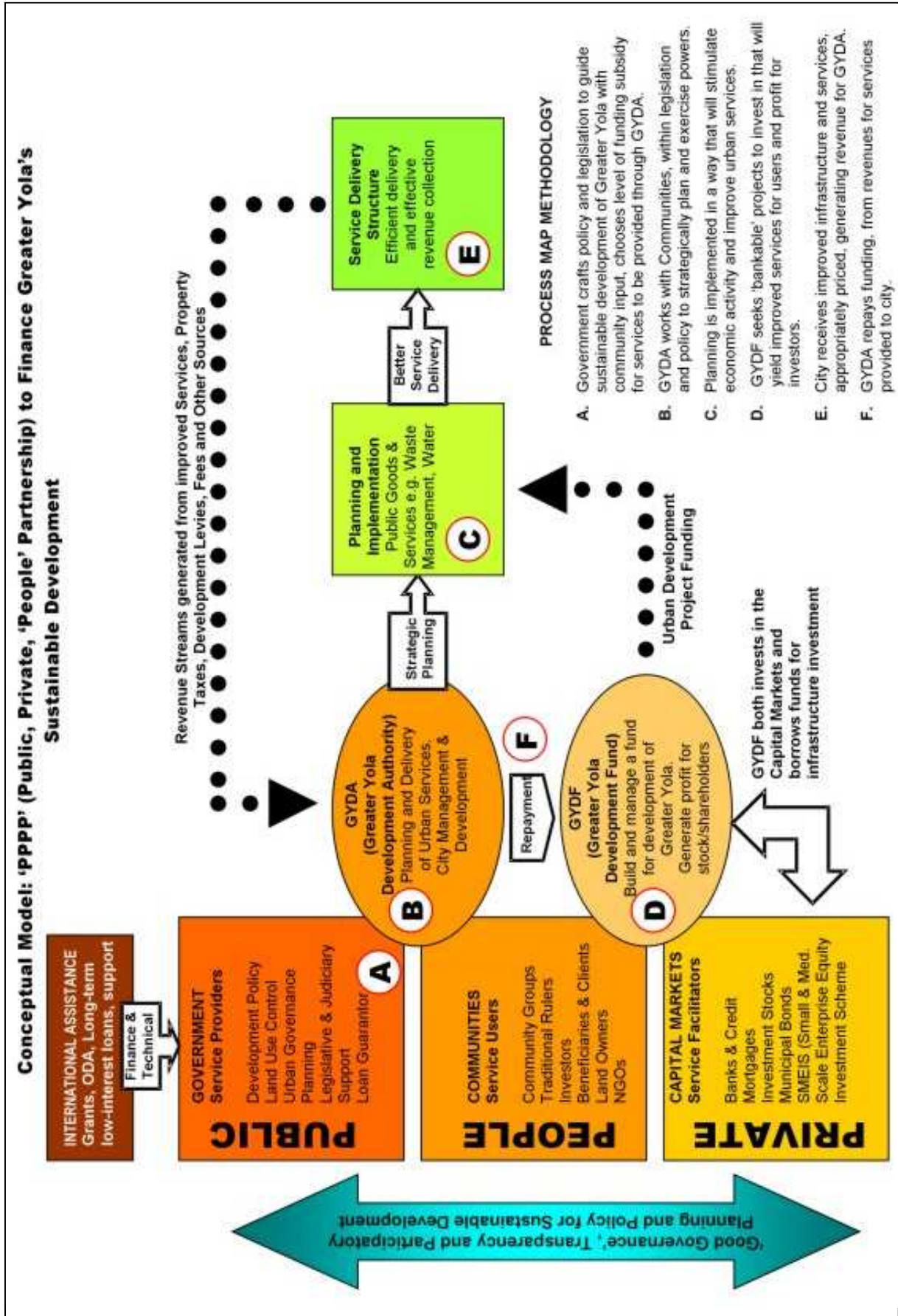
The longer term role of ASUPDA in the wider issues of plan making, development control and land management should be the subject of detailed study and discussion before being set out in a formal agreement of responsibilities.





The map above shows the Local Government Areas that fall within the immediate influence of Greater Yola and that should be considered as partners within a Greater Yola Planning administration. The theoretical structure for such an organisation is shown in the right hand diagram (also taken from the original 1976 report), which has been largely reflected in Federal and State legislation. Detailed study and consultation with all parties will need to take place urgently and an urban regional administration with defined responsibilities set up.





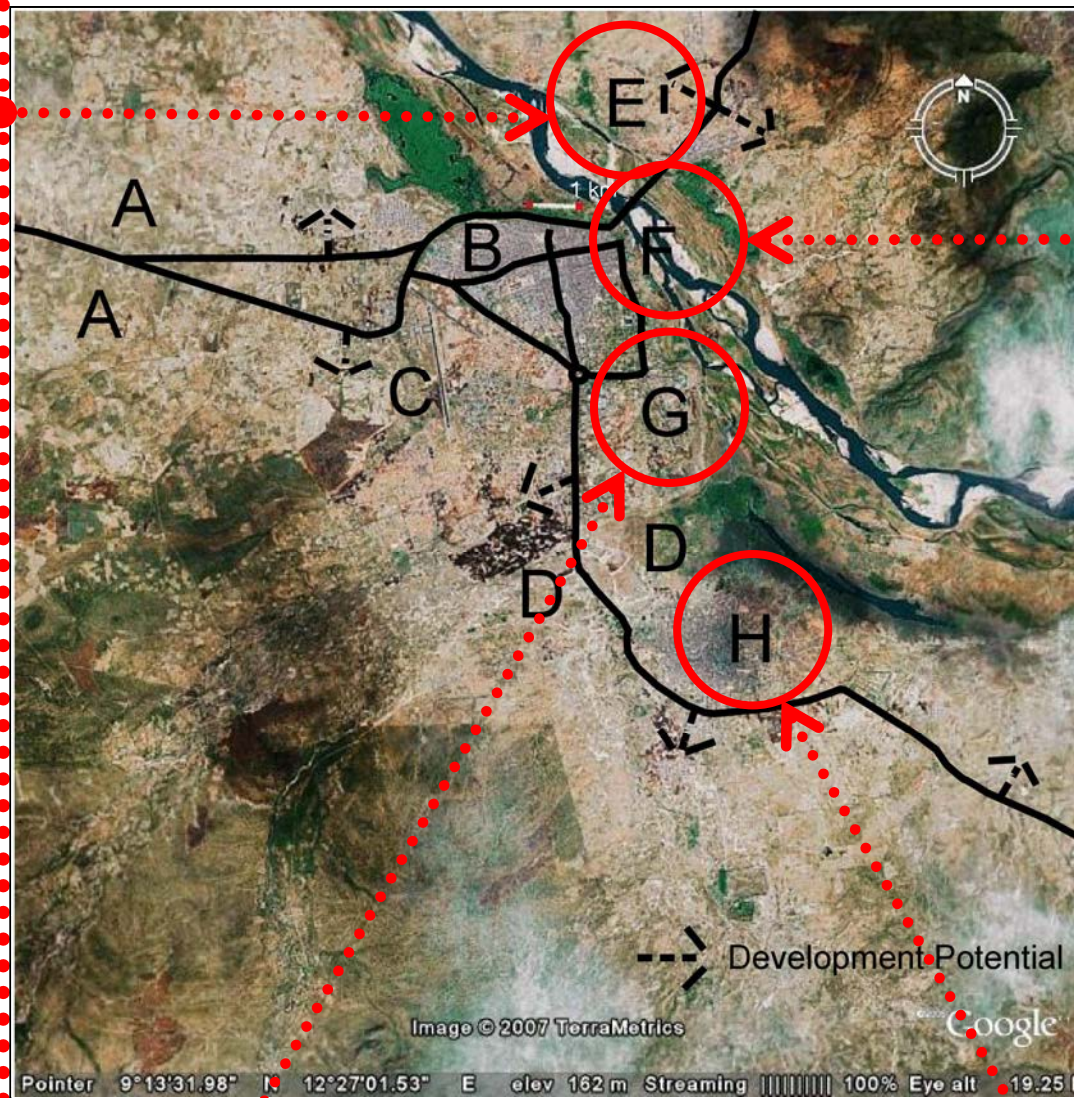
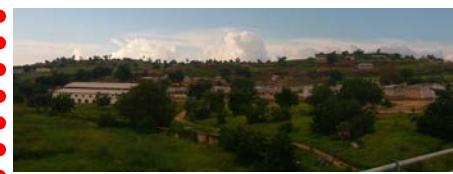
**E. The North Bank of the Benue**

The north bank of the Benue has had much informal investment at a higher density stimulated by the building of Institutions of Higher Learning and the fact that the generally low density development on the south bank has deprived many of the opportunity of building land there.

Institutional land allocations should be examined and strictly related to need. Excess land allocation should be revoked. The existing informal settlements should be examined for ways to improve their access, servicing and quality of life through community participation.

The balance between good agricultural land and urban development should always be in favour of preserving the good agricultural land, which is irreplaceable, and encouraging its increased productivity due to the opportunities of having a large market on its doorstep.

A 'gateway' to Greater Yola should be designed and constructed close to the top of the hill leading down to the bridge and indicating clearly where important places are and the improvement of roads to them. The gateway could be conceived, in urban design terms, as a development zone, with new buildings to give a particular presence and significance to this part of the city. The good quality of development on this and the western approach road should be carefully encouraged and monitored and instil a 'pride of place' and form part of a wider Gateway Development Zone.



**G. The Government Centre**

This area is at the southern end of the GRA, on high ground with good tree planting and long distant views over the Benue flood plain and to the mountains in the distance. It contains many of the most important State and Federal Government buildings including Government House, The State and Federal Secretariats, the High Court and old Provincial Office.

There is an overall issue of security, which has been dealt with in a piecemeal manner on a plot by plot manner often to the detriment of the well designed buildings inside ugly and intrusive fences and walls.

The whole area needs to be looked at comprehensively and brought together as a visual and exciting urban landscape showing that it is a 'place' suitable and made for ceremonial and State occasions as well as for the ordinary citizen to approach government.

A planned and integrated set of guidelines for traffic and pedestrian access, landscaping, tree planting, public spaces, street and other lighting and security should be put in hand and implemented so that as funding and opportunity arise every individual plot change and development fits in to an overall visual concept of well organised and approachable government.

**H. Yola Town**

Old Yola has retained much of its traditional character and has been kept largely traffic free by the construction of the southern by pass. Much distinguished urban quality in its tree lined avenues has been lost due to largely unnecessary tree cutting drainage and road widening.

Detailed design guidelines should be drawn up and implemented for a community led programme of infrastructure development and improvement and tree planting throughout the historic old town 'within the walls'.

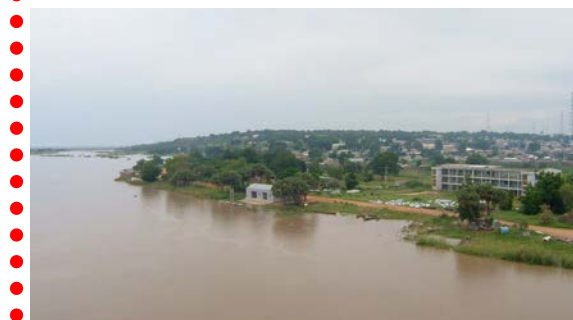
A complete register of all land allocations outside the town should be made and mapped on to high definition satellite images to assess the opportunities arising from possible land revocation, re-allocation or land sharing for sustainable development housing and institutional schemes and their access related to potential traffic generation.



**F. The Southern End of the Jimeta Bridge and GRA**

The anticipated spur to commercial development at the southern end of the Jimeta Bridge has not taken place due to the lack of the proposed road connection between the bridge end and the eastern primary road running south, which has been built. Most of the land in this area that is free of the floodplain is grossly underused and with little new development in the past thirty years. Much of the same criticism can be levelled at most of the old GRA.

The whole area should be the subject of a detailed Survey and Plan with consideration given to land reallocation. The aim should be to encourage employment creating development that would be mixed use, high density and close to existing high density housing thus reducing potential journeys to work and vehicle use.



**Future Development Areas**

The areas for future development are indicated on the satellite image with broad dashed arrows. These are all well above the flood plain and are equidistant from the existing economic retailing and service centre in Jimeta.

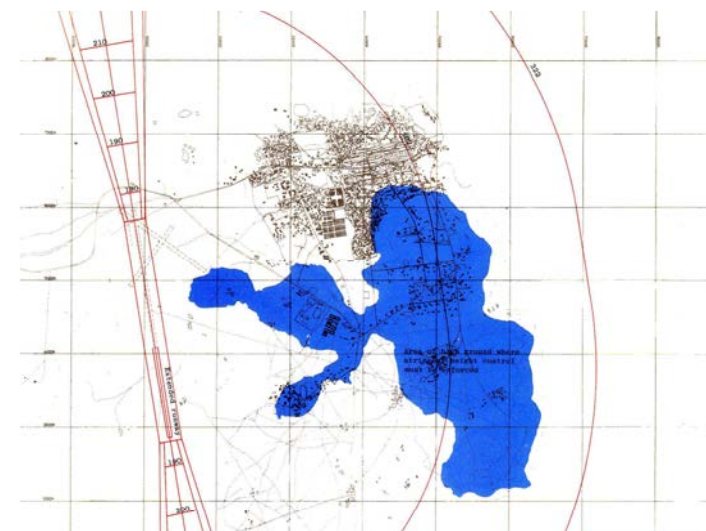
Before final detailed decisions are taken a survey of the sites should be made so that

- the best of the agricultural land is retained;
- the topography is studied so that urban layouts take advantage of natural drainage offered by the topography;
- commercial sub-centres are clearly defined to encourage investment resulting in local employment and reducing regular commuting between these new areas and the Jimeta centre; and
- adequate provision is made for smaller plots on sites and service layouts for those on lower incomes to build incrementally.

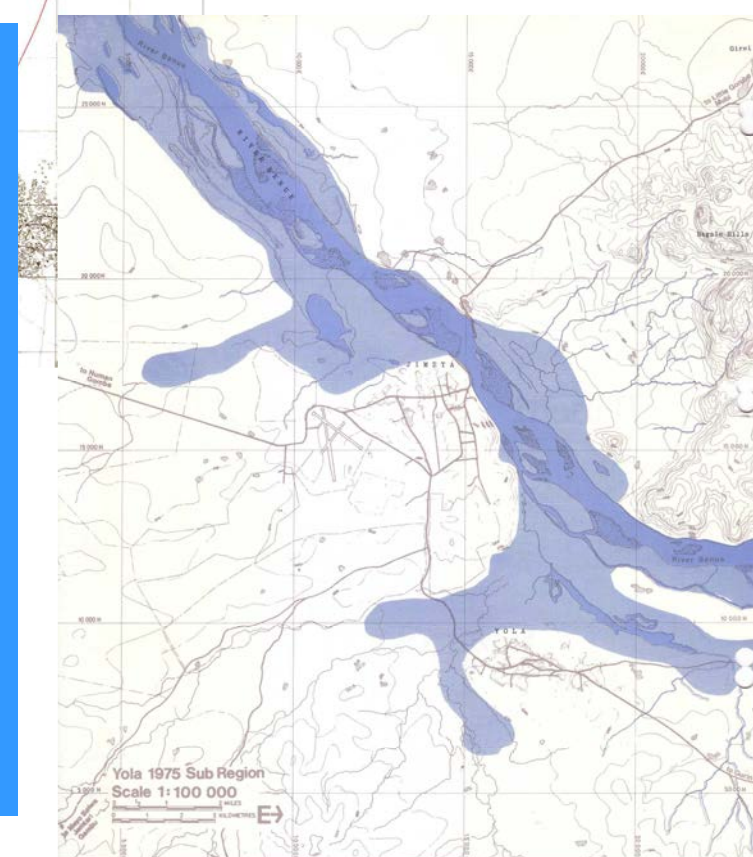
In the area north of the Numan Road space for a new airport site should be preserved in the eventuality that a decision will be taken to relocate the existing airport.



**Greater Yola: Airport Restrictions**



**Greater Yola: Floodable Land**



These two maps are taken from the original Max Lock Greater Yola Report 1976 and show the major constraints to the physical development of the urban area. The Airport Restrictions on building height show that much of the existing Jimeta urban area is under severe height restrictions of between two and four storey new building so long as the airport remains in its present location. The influence of the airport on urban development spreads far beyond the airport boundary.

The flood plain shown in the right hand map is also a severe constraint on physical development and should in any case be carefully nurtured as valuable agricultural land with potentialities for increased food production for the urban area and specialist export.

Both these broad constraints will need to be observed in any future city planning.





## Chapter 5 – Natural Resources in Adamawa State

### 5.1 Introduction

Many have contributed to this section on Natural Resources, some of whom we have worked with in this area over the past thirty years. Members of staff of the Federal University of Technology Yola have contributed their specialist local knowledge and the latest mapping data in their possession. MLCN is grateful for their contributions and their concerted interest in improving the large and varied bank of knowledge that is scattered in many locations.

There has been a long academic interest in the natural resources of the North East of Nigeria and the bordering areas in Niger, Chad and Cameroon, with particular attention to their potentiality and their conservation. Much of this information is dispersed and difficult to access. It is a wealth of knowledge that should be consolidated to form the basis of decision making.

Any investment in Natural Resources, on which the prosperity of almost all the people of the State ultimately depends should be carefully assessed so that it does not damage further that which is already fragile and under strain from severe swings of climate over the past decades. This has been exemplified by

the massive retreat of the Lake Chad shoreline and the encroachment of the Sahara desert as well as the recent concentrated and extreme rainfalls.

Furthermore, the traditional conflicts between livestock, arable, fisheries and forestry interests have also been damaging to the habitat as a whole, and so far forestry would seem to have been the loser. All interests are in fact inter-dependent and damage to any single one is damage to the whole.

The potential of economically exploitable mineral deposits needs definitive assessments based on a full geological examination of the relatively small and few locations where the possibility of appropriate deposits might exist.

For the 'snapshot' view in this report we have tried to bring together as much of the data as possible and to present it as clear maps covering Adamawa State along with a short, summary text.

It is worth noting that although the international price of minerals is currently shooting up and could sag later, fish will become scarcer and more costly for a long time.

The land and the people who live on it and rely on it for their livelihood are the most valuable resources of Adamawa State.



The River Benue in full flood September 2007.  
Traditional fishing on the banks at Jimeta.

## 5.2 Geology

The oldest rocks, commonly known as the crystalline Basement Complex, were the result of a regional event some 600 million years ago in the Pan African period. This resulted in metamorphic alteration of older rocks along what is known as a mobile belt.

These foliated metamorphosed rocks are mainly migmatites, gneisses, and schists. In the late stages of this event the metamorphic rocks were in places subjected to greater heat and pressure, and mobilised (melted) to form foliated, coarse grained rocks called the Older Granite suite.

Much later, another upheaval – mainly in the Cretaceous – was the separation of Africa and South America which drifted apart on tectonic plates, while the widening Atlantic Ocean formed in between. A subsidiary stretching followed the line of the Benue valley, resulting in a long narrow sea.

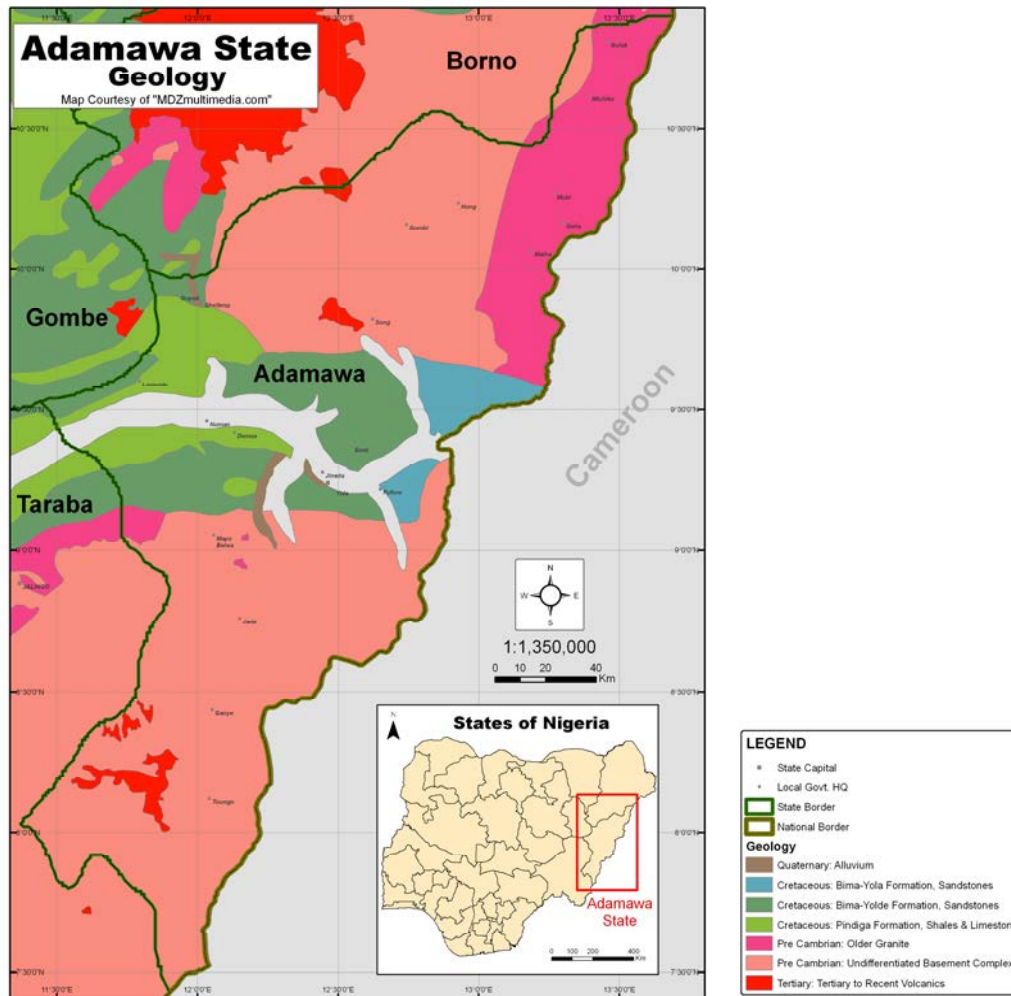
The crystalline basement rocks eroded and the products were washed into the sea. The earliest were coarse angular sands which created a delta. As the sea deepened, progressively finer material arrived, so that the coarse sands of the sea bed were covered by silts and finally clays.

Ultimately the tension created by the continents pulling away from each other was released, and the whole Cretaceous system narrowed, folded and compressed. The sedimentary rocks that resulted are, from base, the Bima Sandstone (the ancient delta), the Yolde Formation (transition as the water became deeper) and a true marine shale which has divergent local formation names (Jessu etc.) but regionally identified as the Pindiga Formation. Finally, into a shallow water environment came another sand body (Lamja Sandstone).

The next event was a much later volcanic episode, notably in Adamawa where plugs, volcanoes and lava flows locally penetrated or covered earlier rocks. The total area of these rocks is very small compared to the earlier Pan African and Cretaceous outcrops.

Overlapping but generally later than the volcanic episode, an arching (almost a ripple by comparison with earlier episodes) brought about a new phase of actively eroding drainage in Quaternary to Recent times, and the formation of extensive alluvial flats mainly associated with the Gongola and Benue river valleys. Some of the alluvium is sandy.





Compiled from several published sources. Subject to revision

### Recommendations

Although exploration for mineral deposits in northern Nigeria began several decades ago, there is yet to be a comprehensive and detailed report on the mineral occurrences in this part of the region. Adamawa state is worst hit by this under-development. Past and recent claims by some Local Government executives on the occurrence of some mineral deposits in their domains confirm that a lot needs to be done on mineral exploration in the state. This has become necessary as some of the claims are geologically impossible and therefore often misleading.

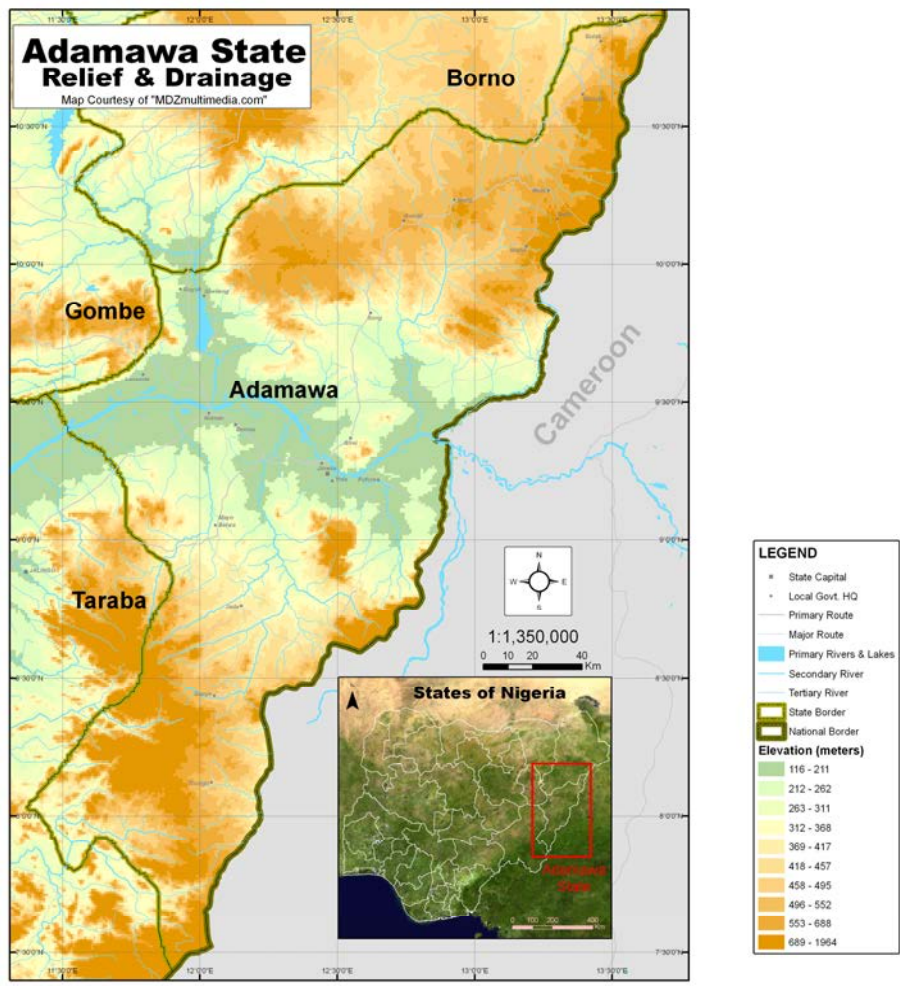
In view of the foregoing, we propose that

1. a review of the geology of Adamawa state be embarked upon
2. an appraisal of the occurrence of any mineral deposit (relevant to the geology of the areas ) and
3. The investment opportunity in 2 above

To achieve 1 and 2 the search should center on

1. Determining the physical conditions, which should include size, shape, attitude, depth and continuity of deposits as claimed in the earlier reports.
2. Determine conditions such as the grade (average range and uniformity), mineralogy, petrology and geothermal patterns.

Finally, with the aforementioned recommendations being embarked upon, a comprehensive geologic map and an acceptable final report on the mineral occurrence in the state can be produced. This will also put to rest the many speculations on this matter.



Compiled from several published sources. Subject to revision

### 5.3 Topography

The topographic trends are parallel to the long axis of the State and the international boundary. The mountains along the boundary are bordered by a planated margin, which gives place to the riverine flats. These flats

are in turn interrupted by massifs and ridges formed by weathering of sedimentary sandstones and related rocks. The following generalised table lists the chief landforms and the corresponding lithological units.

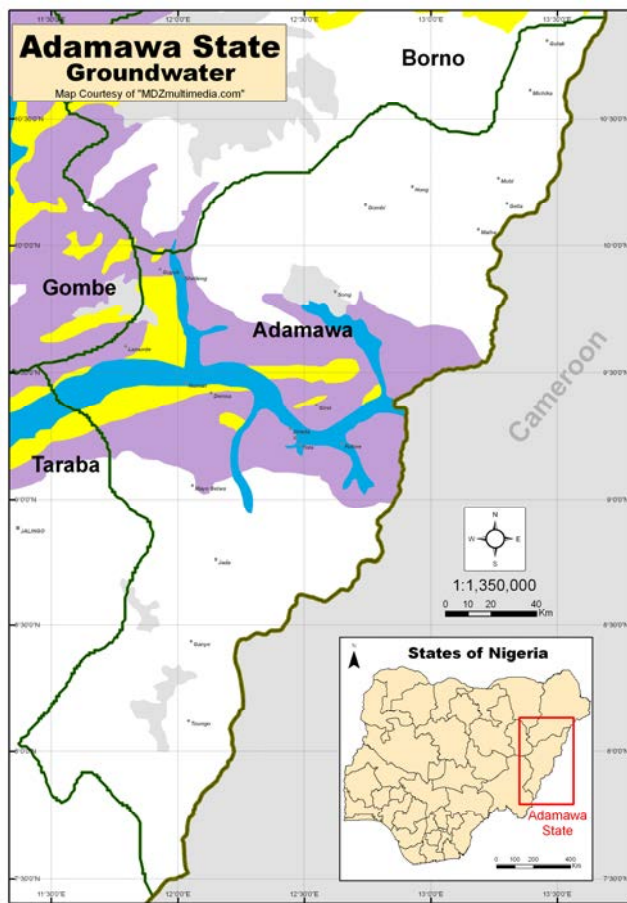
Landform	Lithology	Remarks
Riverine lowlands	Quaternary alluvium	Benue and tributaries
Other lowlands	Cretaceous shales	e.g. north of Numan
Buttes	Basalt flows	e.g. Longuda plateau
Needles/Obelisks	Exhumed volcanic plugs	Dispersed
Ridges	Dissected fold structures	e.g. Lamurde anticline
Smooth hills	Cretaceous sandbodies	e.g. around Yola
Piedmonts	Planated crystalline rocks	Mountain margins
Mountains	Crystalline basement	Mandara & other ranges.

### 5.4 Surface water and drainage

The drainage is structurally controlled. The principal river, the Benue, imports surface water from Cameroon. The flow is augmented by several perennial and sub-perennial rivers. Dominant are the high energy components draining the highlands of the Cameroon border (the Mayo Kilange/Song system, the Mayo Tiel, Mayo Belwa and others). Additional components are lower energy components of the right bank. There are considerable records available in various data bases, which

should be researched, evaluated and programmes determined for bringing them up to date and keeping them that way.

In aggregate there is abundant surface water within the State, and this resource is underused. There is a lot of information which cannot be collated in the time available for this report but which should be fully assessed in any second stage with phased recommendations for implementation of small scale projects involving the training and participation of the communities that will use them.



Source Water Surveys. Subject to revision

Grey	Crystalline (Tertiary to Recent): Mainly basalts. Aquifer: Mainly porous interflow horizons and ashly layers. Occasional vertical fractures. Confined water levels variable. Permeability: Variable, usually low. Drilling Depths: <70 m. Percussion or hammer rig. Geological visit and investigation needed.
Blue	Sediments (Late Tertiary to Recent): Sands, Silts, Clays, Gravels. Aquifer: Coarse Sands. Permeability: Moderate to High. Water Rest Level: Shallow. Drilling Depths <35 m. Washbore, vibrobailing, rotary.
Purple	Sediments (Cretaceous): Sandstones, mudstones, siltstones Aquifers: Fractured zones among barren non-fractured blocks. Some porous horizons (zones). Unconfined, some saline horizons in south. Permeability: Variable. Drilling Depths: Generally 50-100 m; rarely 150 m. Hammer or Rotary. Data inadequate. Geological visit needed.
Yellow	Sediments (Cretaceous): Shales, barren generally but there are zones where underlying aquifer sandstones are within drilling reach. Data inadequate. Prospects poor. Investigation needed
White	Crystalline (PreCambrian to Jurassic): Granites, gneisses, migmatites, quartzites, schists. Aquifer: Confined fractures and phreatic porous weathered mantle. Water Rest Levels: Usually 20 m and less. Permeability: Variable. Drilling Depths: <40 m. Down hole hammer. Data inadequate. Prospects poor, Investigation needed.

### 5.5 Groundwater

The following table is a summary of the more extensive aquifers within the State. Other localised, minor aquifers are not mentioned as they do not relate to major planning.

The Groundwater Map and its Legend shows the areas with potential groundwater resources and their value. The data for this map is

based on various field works and logs up until the mid 90s which were available to us within the time scale of this report. Further work has been carried out by various sources since then and these need to be collated and incorporated into a coordinated and constantly up dated and monitored data base to record output, quality and replenishment rates.

Formation	Aquifer	Permeability	Storage	Recharge
Alluvium	Sandy components	Very high	High	Regular and complete
Yolde Formation	Open joints	High	Low	Variable
Bima Formation	Open joints	High	Low	Variable
Crystalline regolith	Basal gruss	Moderate	Moderate	Regular and complete

## Alluvium

In the larger river flats there are layers of sandy alluvium. The shallowest are migratory, i.e. affected by river flow and partly saturated. Under this layer are static sands inter-dispersed with clay layers. Because the layers are lenticular in nature they generally are in hydraulic continuity with the river bed.

Depending on the river regime they are therefore either continually or seasonally recharged completely. Water quality is reasonably good; particulate matter and most bacteria have been filtered out in the process of recharge. Dissolved solids approximate to those of the river water; the water flowing into alluvial basins from highlands has not had time to pick up many harmful solutes. The useful alluvium is shallow; it is best located by geophysics.

Water from the alluvial aquifer is best suited to 'single farmer' irrigation using portable petrol driven 5mm. pumps in shallow boreholes (often washbores). There is no water wasted, as excess returns to the alluvium below. Typically, a suitable alluvium can support its own area of cultivation between recharge periods. Large villages and semi-urban centres can be supplied from this aquifer, using groups of shallow boreholes in a 'univac' system. However, communities tend to live at some distance from alluvium, for health reasons, and the distance to the source may be unsuitably great. Abstraction by shallow boreholes is preferred to horizontal infiltration galleries, as the latter encounter problems (typically screen clogging) and are much more expensive to install.

## Yolde and Bima Formations

Spatially the useful component of these sedimentary rocks is limited to jointed areas, since they have low primary porosity. The permeability in clean tensional joints is high,

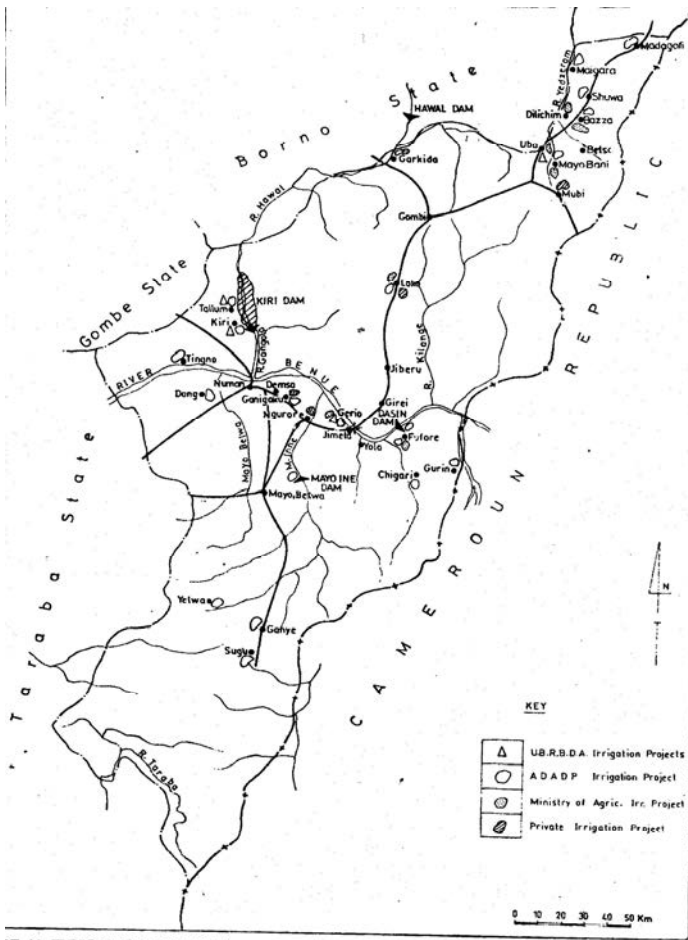
but because of their limited volume the immediate storage is low. As the ratio of voids to solid rock is low, a large area is needed for each high yielding borehole. Borehole siting consists in locating accurately the water bearing joints; this is achieved by the use of common sense and geophysics. Water can be moderately deep.

Individual boreholes can give high yields (average 40 tonnes per hour) but a wellfield for urban use would drain a much larger area, so that care is needed in planning such a development.

## Crystalline regolith

The weathered zone of crystalline basement rocks, and also of some volcanics, is a very extensive aquifer, though because of limited storage and permeability it does not give spectacular yields. Weathering varies; useful ground has more than 20 metres of aquifer below surface; total drilling depths are at most 40 metres. The basal zone of dislocated rock, immediately above fresh rock, is termed 'gruss'. Though thin, has a usefully high permeability. This zone is fed from saturated weathered material above it. There are fractures in the fresh rock below, which are recharged from the gruss. The zones of deepest weathering, associated with fractures, are targets for drilling. They are located by using geophysics.

This aquifer is suited to village supply (circa 700 head of population). Zones of deep weathering hosting a useful body of groundwater are restricted in area. Though total recharge is annual the period between recharge, when water is 'mined', is long enough to limit the available yield to one or two hand pumped boreholes for one village. The practical limitations to hand pumping ensure that over-abstraction is not a problem.



KG. 11: IRRIGATION PROJECTS

Source: Scan from Federal University of Technology Yola

## 5.6 Irrigation

Irrigation potentials exist in various parts of the state, however, differences in the scale to which they could be developed depends on the location. Existing schemes include; Gerio, Tallum, Kiri, Dwam, Jimeta Garden (Chouchi), Loko, Mayo Bani, Garkida & Dasin Kambo.

These schemes are managed by

- 1) Upper Benue River Basin Development Authority
- 2) Adamawa Agricultural Development projects
- 3) Ministry of Agriculture and (4) Small Scale Individual farmers or groups.

Recently, the Fadama II project is making a lot of effort in boosting the small scale irrigation schemes in some local government areas.

Based on soil type and availability of water, irrigation schemes could be established only in the following local governments: - (1) Numan, (2) Demsa, (3) Fufore, (4) Yola North, (5) Yola South, (6) Song. These local government areas have some large expanses of land with little or no interference from surrounding hills. Their soils may offer low infiltration rates that could support surface irrigation methods of flooding or the use of furrow.

## 5.7 Recommendations relating to water availability and use

### General

A socio-economic study should be made of water resources and current usage, for alimentation and irrigation in liaison with authorities and agencies, inter-state, regional and Federal.

**Irrigation:** An evaluation should be made of larger, managed schemes involving impounded water and small family units using groundwater.

The two areas of greatest interest should receive special attention:

- Fadama irrigation from groundwater
- Irrigation of impermeable (shale) lowlands by shallow excavated reservoirs.

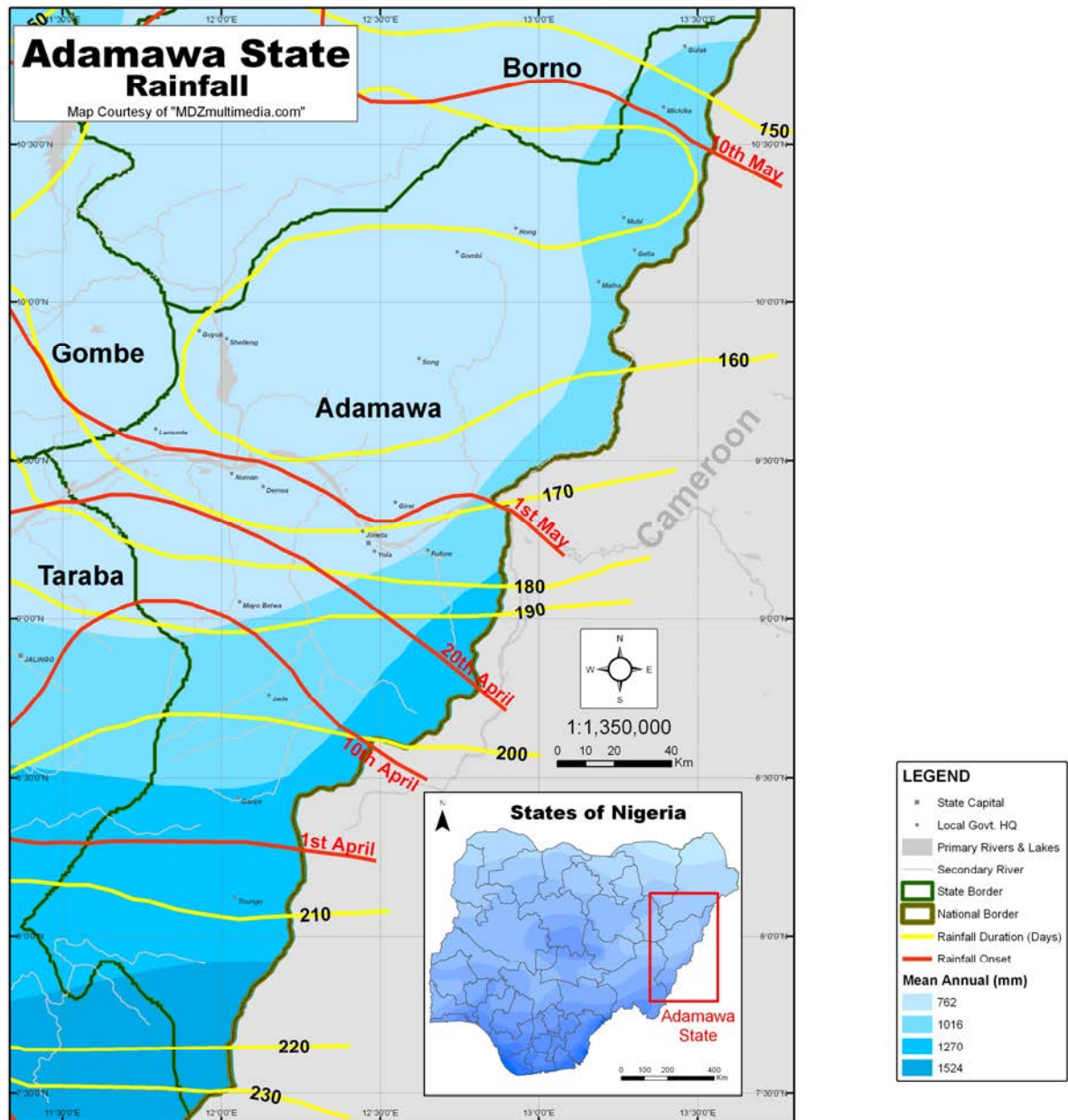
Economics, environmental impact, land tenure, market projections of crops, management efficiency should be addressed.

### Groundwater

Groundwater availability should be quantified in relation to each of the more important aquifers, and areas of under-use identified. Cost effectiveness of the various water drilling and abstraction methods should be compared. Financing of groundwater supply schemes should be discussed (who pays, for what, for how long).

### Husbandry and planning of water supplies

In riverine areas, conjunctive water use should be evaluated (as for instance the development of leaky dams to control and enhance adjacent alluvial aquifer use).



Compiled from several published sources. Subject to revision

### 5.8 Climate

The rainfall in Adamawa state is characterized by two seasons. These are the rainy season which commences usually in the month of May and ceases in the month of October though in place like Toungo the end of the rainy season may reach the middle of the month of November. The mean maximum rainfall in a year 912mm. The dry season commences from the month of November to the month of April

usually characterized by dry winds and harmmatan dusts.

The annual mean maximum temperature is experienced in the months of March to May reaching as high as 43°C. On the other hand, the mean annual minimum temperature is experienced in the month of December where the temperature reaches as low as 23°C.



### 5.9 Vegetation

Various studies conducted on the vegetation of northern Nigeria revealed that the entire region is covered by the Savannah. This is further subdivided into four zones, namely; the southern Guinea zone, the northern Guinea zone, the Sudan Savannah zone and the sahel Savannah zone. Of these four broad classifications, the Southern Guinea zone, the Sudan Savannah zone and northern Guinea zones characterize the vegetation of the state.

J.W. du Preez, et al., 1965, described the Southern Guinea zone as a transition between the forest and the Savannah with a form of transition woodland as its climax vegetation. This zone affects just a small portion of the southern corner of the state around Toungo local Government area

The northern Guinea zone consists of broad- leaved Savannah woodland. The larger flood plains in this zone carry a distinctive vegetation of grass and palms while relatively dense gallery forests occurs along some of the streams. Jada and Ganye local government areas are characterized by this vegetation.

The Sudan Savannah has been described as a zone consisting of fine leaved thorny trees mixed with broad leaved species of Guinea zone affinities. This zone is also characterized by more or less continuous cover of grasses with the short feathery type dominating. Many of the valleys carry a discontinuous belt of fringing forest.

Unfortunately, most of these vegetation covers do not presently exist as they have been cleared for farming and fire wood purposes. This has largely contributed to desert encroachment presently experienced in the region.

### 5.10 Forest Resources

This is the most exploited resource in Adamawa state. Complete carelessness and lack of management leaves the state with no true forest reserves today. Although the map

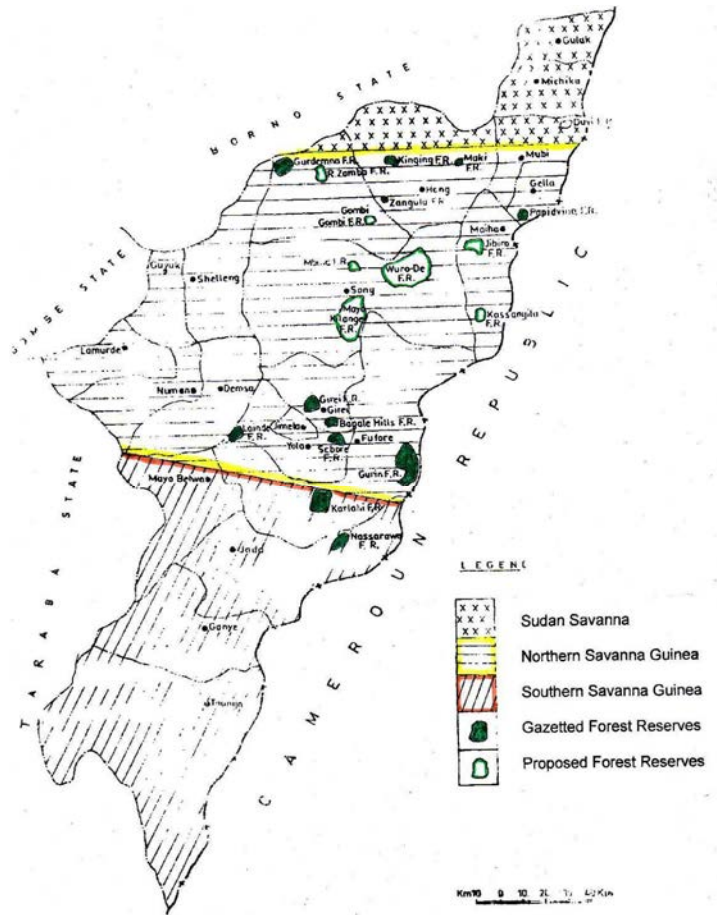


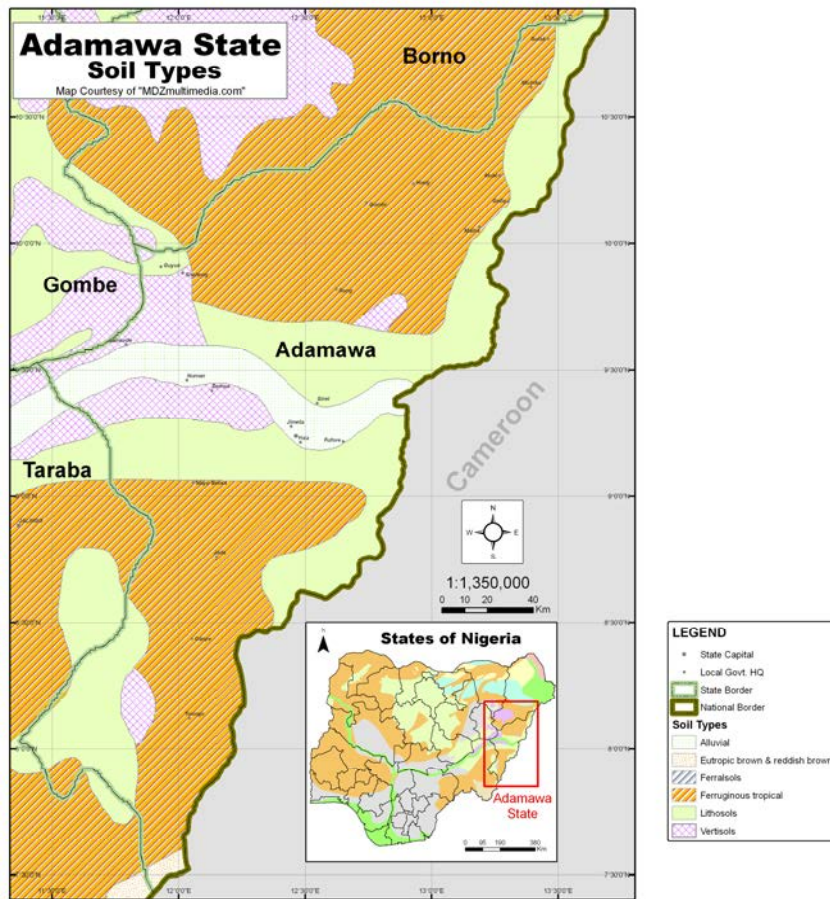
FIG. 9: VEGETATION ZONES AND FOREST RESERVES

Source: Scan from Federal University of Technology Yola

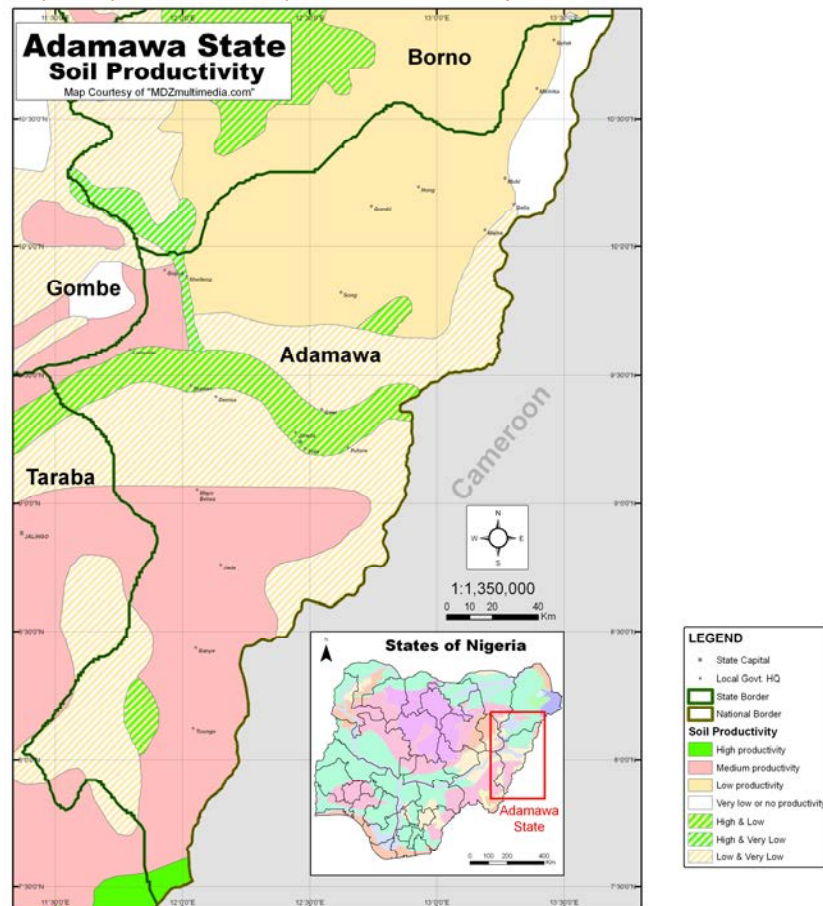
of forest reserves shows both proposed and Gazetted forest reserves, the true picture today is a massive network of cattle routes in all areas indicated as forest reserves.

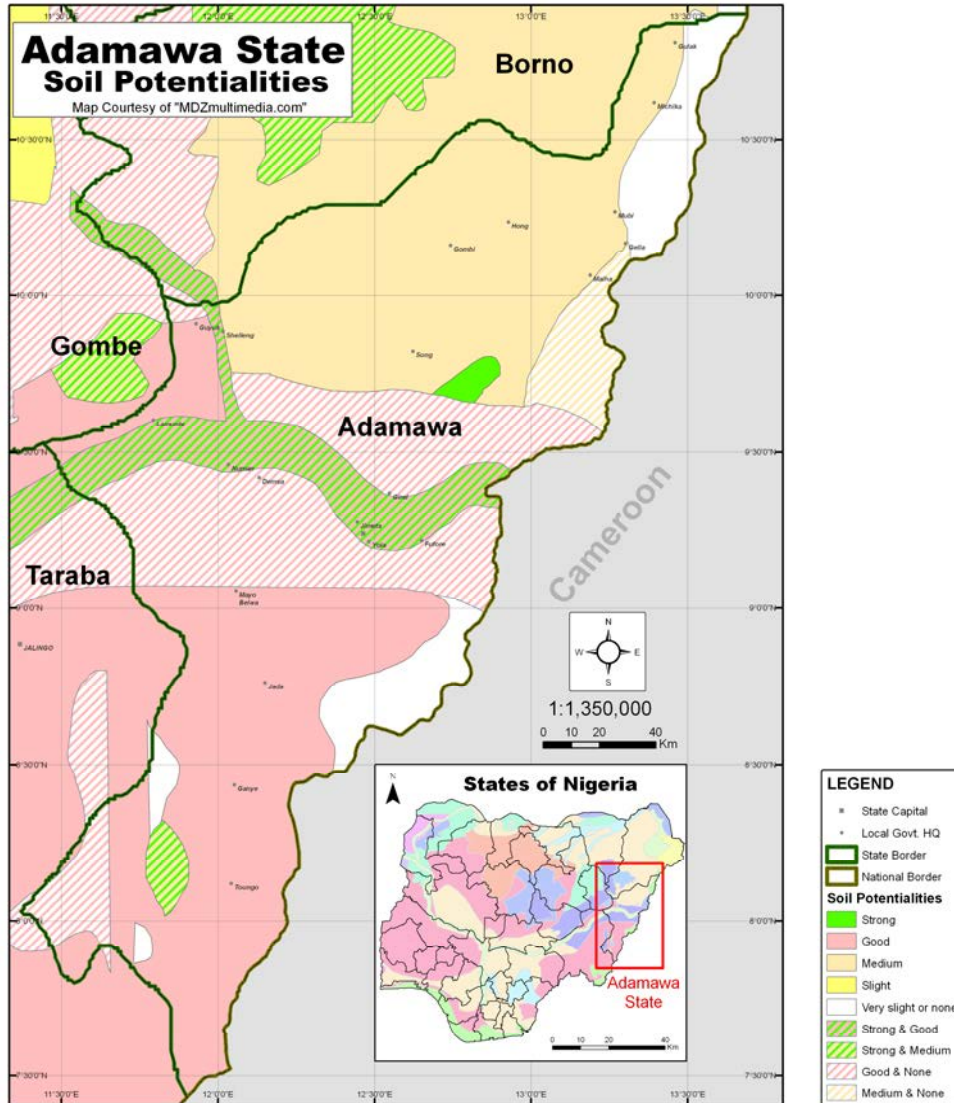
Excessive deforestation has consumed most of the forest resources and may constitute a great challenge to the state if a well-supervised system of re-establishing the forest reserves is not put in place. Today, there are more hybrid fruit trees in the state than most of the natural trees which provide various potentials in desert control, soil and environmental protection, and medicinal values.

The only true forest reserve in the state exists at the boundary with Taraba State in Toungo local government area; and unfortunately, most of it is in Taraba State. However, the extent of its distribution in Toungo is worth developing.



Maps compiled from several published sources. Subject to revision





Compiled from several published sources. Subject to revision

### 5.11 Soils

Soils in Adamawa State are characterized by different parental materials giving rise to soils of different mineralogies. The major parent materials include the Basement Complex rocks, sedimentary rocks, the volcanic rocks and alluvium. Most of the soils belong to the order called Alfisols (luvisols) which can offer a wide range of agricultural potentials except where land capability limits its productive potential. Other soil orders include inceptisols and vertisols (clay type).

Common limitation to suitability and capability of the soils include

1. local relief or surface configuration Ganye, Kada, Mayo Belwa

2. presence of rocks and gravels resulting in shallow soils Ganye, Jada, Mayo Belwa
3. soil erosion Mubi, Maiha, Girei
4. lack of drainage and continuous flooding Numan, Demsa

### 5.12 Food Production

The map of various arable crop production in the state should be reviewed following field work and surveys with a view to seeing how acceptable and sustainable means of increasing yield and production can be achieved.

This is because the map failed to capture the extension potential for rice production in Guyuk, Shelling, Mubi and Jada. Also the potentials for G-nut production in Hong,

S/No.	Agro-Raw Materials	Principal Production Area (LGA)	Potential Food Industry (Processed Products)
1.	Cow/Goat/Ram/Chicken	All LGAs	Smoke-dried and sun-dried products. Other forms of improved shelf life of processed meat products and animal feed.
2.	Milk	Yola North and South, Fulore, Mayo Belwa, Song, Maiha, Shelling, and Guyuk	Culture milk products i.e. Nono and kindirno butter, etc.
3.	Fish	Numan, Demsa, Fulore, Girei, Song, Mubi, Maiha, Shelling, Yola North and South	Sun-dried, smoke-dried fish products, fish powders.
4.	Maize	Michika, Madagali, Mubi, Maiha, Girei and Song	Grits for breweries, maize flour, pastes, corn flakes, and vegetable oil.
5.	Guinea Corn	Girei, Gombi, Maiha, Song, Guyuk, Fulore, and Mayo Belwa	Grits for breweries, flours, bunakutu production.
6.	Rice	Fulore, Demsa, Yola North and South, Mayo Belwa, Shelling, Guyuk, Girei, Song, Ganye and Tuongo	Parboiled and non-parboiled rice, destined rice, rice flours and grits for breweries.
7.	Cowpea	Hong, Gombi, Fulore, Girei, Michika, Madagali, Song, and Maiha	Cowpea flour including composite and cakes.
8.	Groundnut	Hong, Gombi, Song, Ganye, Tuongo, Fulore, and Jada.	Fried peanuts, groundnut oil and cakes.
9.	Sugar cane	Michika, Madagali, Numan, Mubi and Maiha	Sugar and molasses.
10.	Yam and Cassava	Ganye, Jada, and Yola South	Gari, chips, yam and cassava flours.
11.	Cotton	Numan, Fulore, Michika, Hong, demsa, Madagali, and Gombe	Cottonseed oil and cakes.
12.	Fruit vegetables	Fulore, Numan, Michika, Madagali, Hong, and Gombi	Dried flakes and purees.
13.	Leafy vegetables	Numan, Shelling, Guyuk, Yola North and South	Salad materials.

Source: E. C. Igwe, 1998.

Source: Scan from Federal University of Technology Yola

Gombi, Song, Ganye and Jada has not been captured by the map.

Food crop and animal production is shown in the table, which needs constant up-dating from field surveys and relating to the marketing system. The potential for wider marketing through improving productivity, processing and branding would be a major study in any second phase.

### 5.13 Livestock

Adamawa stands out as one of the greatest producers of cattle population in the country. The livestock industry is in the informal sector amongst the nomadic cattle rearers. This industry has suffered negligence due to the fact that the official reserves of cattle routes has been cleared by the peasant farming populations and this has resulted in clashes between the farmers and the cattle rearers.

Today, forest reserves have become the carriers of dense network of cattle routes in the state. This reserve must be protected from the growing population involved in cutting down the trees for firewood, and this has truly reached an alarming stage, though it seems unnoticed.

Other developments must follow provision of

veterinary services, truck loading facility and largely developed market space at strategic towns like Mubi, Jabilamba, Ngurore and Ganye.

### 5.14 Fisheries

The potential for sustainable fisheries should be seriously examined. As already mentioned the world wide shortage of fish is almost certain to see the increase in prices maintained. The dietary value should not be under-estimated. The hazards of disease related to fish farming are now well established and all precautions, monitoring and control would need to be in regimes that are understood and acceptable to local producers.

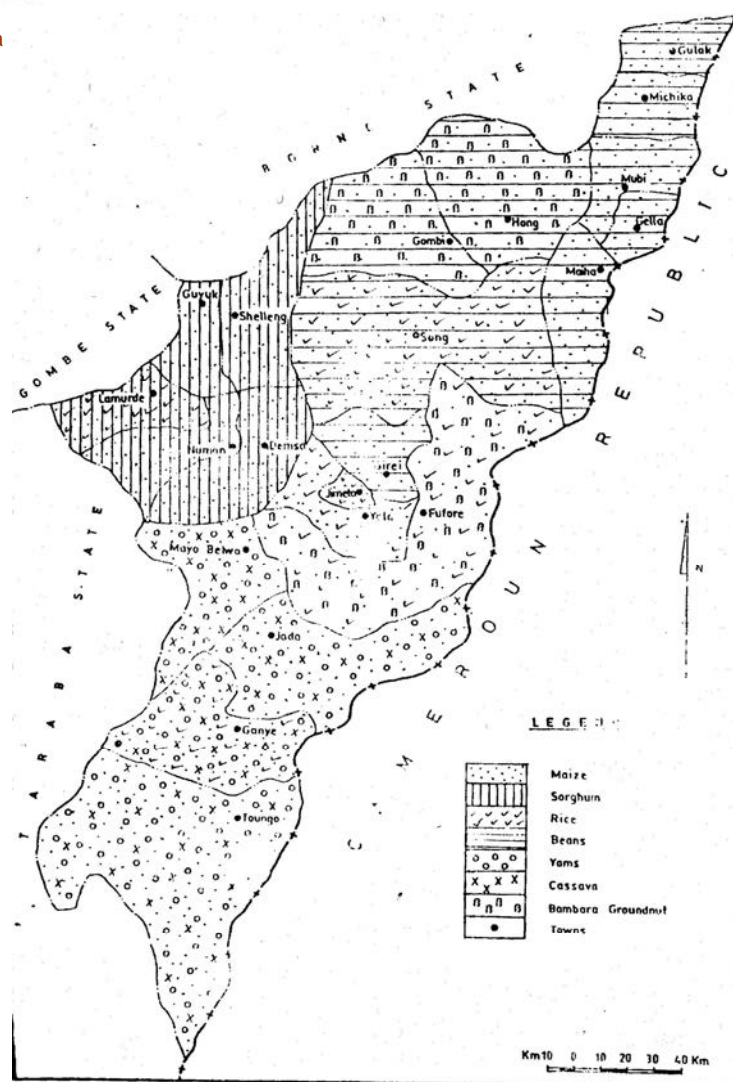


FIG. 10(a): MAJOR FOOD CROPS

Source: Scan from Federal University of Technology Yola

## Chapter 6 – Economy

### 6.1 Local Economy

Adamawa State is a relatively poor, predominantly rural, geographically-remote state on the north-eastern Nigerian border. Resources are limited, and there is a high degree of dependence on Federal Government subsidies. Broadly, the economy is split between rural agricultural activities and an urban economy, which is largely dependent on government employment and trading activities servicing the white collar sector, as well as on livestock and other wholesale and retail agricultural markets.

According to our survey, State Government and parastatals showed a total staff strength of some 46,000 with 2,400 based in Headquarters in the Capital and the remainder in sub offices. There are over 20,000 employees in local government plus nearly 18,000 teachers and 1,000 healthcare staff although there may be some double counting here between State and Local Government returns to our questionnaires. Many of these are employed in rural areas, but government employment is concentrated in the towns, and these figures probably do not reflect the full extent of government-related employment. The returns from Federal Government agencies based in the State are not included due to the incompleteness of these returns. Police and military personnel would also add considerably to the numbers.

Without access to proper data, it is difficult to make any proper assessment of the employment structure of the state or analysis of other economic factors. However, certain initial propositions can be made on the basis of the earlier Max Lock Greater Yola study. The proportion of economically active persons in the population (around 30% for Yola and Jimeta in the early 70s), may have changed if the proportion of economically active

women has increased, but this change is unlikely to have been dramatic. A significant proportion of the urban population was engaged in agriculture in the 1970s (ranging from 35% in Yola down to 11% in Jimeta at the low end). This proportion may have gone down due to the growth of other sectors but it is still evident.

There has been growth in urban employment in line with the population growth in urban areas and rural-urban migration. The growing dependence of Nigeria as a whole on oil exports from the late 60s onwards, has been associated with a lack of progress in increasing the productivity of agriculture, with its large element of subsistence farming and low efficiency in the production of cash crops. This is certainly the case in Adamawa, with the major growth in employment having been in the public sector and in informal trading and other, low-paid, relatively low productivity informal activities. Many people and households are likely to have several sources of income.

Recommendations that we made in our 1976 report (Max Lock Group Nigeria 1976) for improving the operations of the main trading and cattle markets are still relevant. A co-ordinated and strategic approach is needed to marketing the products and services of the State as a whole, encompassing both formal and informal economic activities. Informal trading outside of the formally recognised market areas should be treated as a source of productive employment and cheap services rather than, as it often is, as a nuisance. The efficiency of the informal sector could be improved through a co-ordinated and managed approach to its activities, building on existing financial and microfinancial, technical, marketing and training support to small and medium-size enterprises. With appropriate support, the informal sector as a whole – productive, service and financial, helps provide a seed bed in which new and successful enterprise can be incubated. In Jimeta, in 1974, there were 648 small traders' premises outside of the daily central market and, if anything, this figure must have increased substantially in numbers and quality in the intervening period.

## 6.2 Potential for Development of Agriculture and Related Industries

Currently there is limited irrigated intensive cash crop production. e.g Kiri Dam and sugar plantations and fruit e.g. mangos for export; and rice paddies in the fadama lands. Soils are generally poor with low water holding capacity, low inherent fertility, low capacity to utilise added fertilizers. Soil erosion is a problem with the runoff from the mountains to the east in the period of short heavy downfalls. Many of these issues could be partly addressed with effective water management schemes.

However, research is needed into why past irrigation schemes have not proved fully sustainable. There are alluvial lands in the Benue valley that need better management to balance the needs of livestock and crop production, and to prevent agricultural land being lost to low-density urbanization.

Access to external markets is needed to stimulate the demand for cash crop production and redirect surpluses that are currently absorbed locally. Better marketing and improvements to transport communications are key to this. Existing agricultural markets need upgrading and improved management. At the same time, the development of processing of food and other agricultural products would also be a spur to local farming.

There have been largely unsuccessful attempts to establish agriculture-related industries in Adamawa State and investment in isolated and scattered plants is unlikely to pay off. What is needed is to stimulate sustained investment in clusters of closely inter-related agri-industry factories that can benefit from synergies and a critical mass of economic activity. Such clusters need to be located close both to major transport infrastructure (federal roads and the airport) and to the most productive agricultural zones in the alluvial plains. Potential locations could be pinpointed, for example, in the Greater Yola sub region, and some of the other major towns.

Well-planned and managed land use is required in those areas capable of supporting more intensive agriculture. These are associated with the main rivers and around the urban centres. Urban expansion, in particular, needs to be carefully managed. Measures need to be taken to achieve workable irrigation schemes and prevent soil erosion. The land needs to be carefully planned to incorporate a system of flood channels and balancing ponds to drain, harvest and conserve water that comes with the heavy rains. This would reduce the damage to agricultural lands and to human settlements caused by flash floods.

## 6.3 Feasibility of Mineral Extraction

There is considerable interest in Adamawa in exploring the possibilities for producing cement, the potential for mining possible mineral deposits such as gold and uranium. The basic geological conditions are set out in Chapter 5. Although further research is necessary before we can comment properly on this, the local geology makes it unlikely that there are extensive mineral deposits, and cement production may be difficult without a level of subsidy, as not all the minerals necessary for its production are present.

## 6.4 Export and Marketing of Natural Resources

With improved communication links, there is the possibility of developing forestry in the southern part of the state, and with it, timber related industries. The development of orchards and the use of trees to help moderate the local micro climate, should also be considered as part of the development of a managed land-use plan for urban areas and surrounding intensive agricultural areas.

## 6.5 Export Processing Zones

According to the ILO (<<http://www.ilo.org>>), free zones, including export processing zones have grown, over the past 30-40 years, to more than 5,000 in number worldwide. 'Today, there are 43 million workers employed in such zones, of which the majority are in China's Special Economic Zones'.

There are many types of free zone (where regulations and tax regimes applied elsewhere in

the host country are suspended or limited to attract investors, in particular foreign investors). They include free trade zones (free ports, free customs zones, bonded warehouses), special economic zones (large regions where regulations for all types of industry are streamlined) and export processing zones (EPZs) and factories (*maquilas* or *maquiladoras*, as termed in Mexico where they are common). In the services industry, free zones include information processing zones (including call centres), financial zones and commercial zones (warehouse areas associated with ports or airport used for goods transshipment).

(<<http://www.ilo.org/public/english/dialogue/sector/themes/epz/epzs.htm>>)

'EPZs have evolved from initial assembly and simple processing activities to include high tech and science parks, finance zones, logistics centres and even tourist resorts. Their physical form now includes not only enclave-type zones but also single-industry zones (the jewellery zone in Thailand or the leather zone in Turkey); single-commodity zones (tea in Zimbabwe); and single-factory (the Export Oriented Units in India) or single-company zones (as in the Dominican Republic). While textiles and clothing and electronics were the main industries initially established in EPZs, the product mix today can include almost any sector.'

(<<http://www.ilo.org>>)

The ILO defines an EPZ as an industrial zone 'with special incentives set up to attract foreign investors, in which imported materials undergo some degree of processing before being re-exported'. Typically it is a physically fenced off enclave, close to a port. Tax and tariffs exemption and streamlined regulation are used to attract foreign direct investment and boost exports.

Export processing zones are set up to help develop export-orientated industries, with domestic sales normally limited to a small proportion of production. Typically, EPZs are focused on light industry and manufacturing. Capital equipment and

production inputs are usually duty-free, and other tax breaks include tax abatement on profits and regulatory relief, with an extended period of exemptions on all taxes. Profits can be freely repatriated and are free from foreign exchange controls. EPZs have to respect national employment regulations, although trade union freedom may be restricted. (<<http://www.ilo.org>>)

### Doubts concerning EPZs

Faced with growing restrictions from international trade rules, the future for free zones is uncertain. Additionally, the ILO raises a number of other concerns regarding the low wages and rights of workers who are employed within them and whether they actually deliver the benefits they are intended to deliver. According to the ILO, 'free zone companies don't pay the social costs of production and may be creating a health and environment "time-bomb" in developing countries.'

The World Bank and the Organisation for Economic Co-operation and Development note that, by themselves, such zones do not solve all the problems. If tax advantages are given to companies that would have invested anyway, no advantage accrues. Separating export-oriented companies in an enclave diminishes the transfer of technology and production skills to the rest of the economy.

### EPZs in Nigeria

The Nigerian Export Processing Zones Authority Decree No. 63 of 1992 vested administration of the Nigerian EPZ programme in the Nigerian Export Processing Zones Authority. The regulatory regime for EPZs includes '100% foreign ownership of investment, "one stop" approvals, no import or export licenses, duty free import of raw materials, unrestricted remittance of capital profits and dividends, tax holidays and no strikes.' The pioneer and premier EPZ is in the south eastern seaport of Calabar, which also has good air and sea links, as well as a pool of skilled labour and developed heavy industry plant and infrastructure

(<<http://www.onlinenigeria.com/agriculture>>).

### Alternatives to the standard model of an EPZ

In the standard version of an EPZ, the benefits to the host country are limited to the creation of local employment, while the foreign investor benefits from a low tax and regulation environment and supplies of cheap labour. This may be seen as a better alternative to migration and export of labour but, potentially, EPZs have a stronger role in stimulating local economic development through the processing of local products, the creation of a pool of skilled and semi-skilled labour and technology transfer.

Prior to the current era of globalisation and freeing up of international trade, many developing countries set up trade barriers to protect and incubate local industry (with limited but varying degrees of success). Inside these protective barriers, some countries set up free trade zones to stimulate particularly remote and undeveloped regions. An example is the Manaus Free Trade Zone (*Zona Franca*), set up in 1967 with special incentives for a period of 30 years to create an industrial, commercial and agricultural centre in the heart of the Brazilian Amazon (<<http://www.kishtpc.com>>).

It is a 10,000 sq. km area, including the main city and free port of Manaus, which has attracted migrant workers from other parts of Brazil and is the fastest growing large city in Brazil. The main feature of the Zona Franca is that a large proportion of its production is for the home market. Imported products used for processing, re-export or transshipment, subsequently shipped to other parts of Brazil, qualify for tax exemptions. The Zona Franca was hard hit by the general lowering of tariff and non-tariff barriers in the early 1990s with the Federal Government bringing in a series of fiscal incentives and other measures to support it. In addition to the free trade zones, 14 export processing zones have now been authorized, with four under construction. Legislation regarding EPZs requires that firms operating in the zone

export at least 90 percent of production.

While it has required additional government support, and is now moving towards a more export-orientated model, the Zona Franca is an interesting and successful example of using a free trade zone to stimulate the development of a remote region. It should be noted that, while road links to the rest of Brazil remain precarious, Manaus benefits from an international airport and is a major port. The Amazon River is navigable by ocean-going vessels and many of the outputs of the Zona Franca are sent by container ship to other parts of Brazil.

### An Alternative Model for Adamawa?

This suggests that any proposal for an EPZ in Adamawa to attract foreign (and domestic) investment would need to look beyond the conventional model. The State has limited communications links with potential export markets and limited means of importing raw materials. It would need to look, instead, to a model that combines production using mainly local raw materials (e.g. food processing and other manufacturing based on agricultural products) and limited export of high value products by air freight (e.g. sustainably produced and processed food products) with larger volume production for the growing urban markets of Nigeria. Clearly, this would rest on a dramatic improvement in the existing road infrastructure and agreeing the necessary tax breaks and regulatory streamlining with the Federal government.

Nigeria was previously a major exporter of food crops until the discovery of oil in the late sixties intensified the process of rural-urban migration and the loss of labour from the land, without the converse sustainable investment in mechanisation to increase agricultural production (<<http://www.nipc-nigeria.org/opportunities.html>>).

To counter Nigeria's growing dependence on food imports the Government has introduced incentives geared towards encouraging investment in the agricultural sector. Among these are zero duty on agricultural machinery, a 3-year tax holiday and export incentives for agro-processing investment, while trade barriers have been imposed on some imported food items. The



priority is to establish self sufficiency in food production and create a surplus for export as raw materials. Policy target areas are groundnut, cotton, cocoa and oil palm production, fish production and forestry; mechanisation; investment in processing, distribution and storage; agricultural research, and water resources development, especially for irrigation and flood control infrastructures along river basins (<<http://www.nipc-nigeria.org/opportunities.html>>).

A free zone in Adamawa would have to go well beyond the existing incentives to attract investors, and the State Government would need to convince the Federal Authorities that this vision of Sustainable Development for Adamawa merited support. It would need to make best possible use of the local resources and infrastructure and to exploit the potential of both export and domestic markets by producing a range of goods appropriate to both.

Yola and other Adamawa names could be associated with specialist, sustainably-produced food products, both for the Nigerian and the international market. Such products in the past made international reputations for place names such as Dundee for marmalade, Camembert, Cheddar and many places for cheese, Hamburg for the hamburger and numerous other examples. The markets for organic and sustainably produced agricultural products are now well established and expanding rapidly. Major international distributors are looking for those willing and able to supply to the standards required. Many growers in East and South Africa are already profiting from these demands.

This is an unconventional approach that requires further research to test its feasibility in the local circumstances. It is possible, for example, to envisage a free zone encompassing the whole state, or one limited to particular enclaves within it. Such enclaves would relate to main towns, roads and the airport and to a plan to improve the management, productivity and output of the

agriculturally most productive areas in the nearby alluvial plains. Once established, these agri-processing clusters could draw on a wider agricultural hinterland. They could also create a multiplier effect in generating other trade and industries (such as agricultural machinery), increase the frequency of air transport and the potential for importing other goods and materials for processing and trans-shipment.

### Broad Parameters for Adamawa EPZ

In light of the foregoing, whilst the precise siting and nature of an EPZ in Adamawa needs more study and research, there are a few pointers in very broad terms, of what a suitable EPZ model might be, for a 'Sustainable Adamawa'. An EPZ (or other trade/industrial zone) should be broadly centred around:

- Agro-industrial forms:  
As the overwhelming majority of the population are engaged in livestock rearing and farming and in the absence of any meaningful manufacturing sector, agriculture must be the entry point for industrialisation in Adamawa. It is the primary focus of the local economy and would be of the 'most benefit to the most people'.
- Appropriate and sustainable technology:  
Technical and educational capacity is low in Adamawa generally and this must be taken into consideration when planning for an EPZ, if it is to be of any benefit to the local populace. Investment would need to be paced appropriately and not set too high above the current realities economic and social on the ground.
- LED-driven (Local Economic Development):  
The argument for or against an EPZ must be predicated on the attainment of increased productivity and economic growth at the *lower* levels of the economy. In other words the 'EPZ' model must empower the local farmer, not swallow their assets and threaten their livelihoods.
- Broad-based/diverse not monolithic:  
Inward investment in Adamawa should be diverse and not built around one single actor or factory, otherwise the entire scheme becomes vulnerable to any economic or market shifts. A

'cluster' of complementary medium-scale industries, is preferable to a single industrial giant in the long-term, despite the fact that a larger investor may have a more impressive initial capital base.

- A range of products for a range of markets:  
While improved air links might be exploited for high value, sustainably-produced products for export, the potential for supplying domestic urban markets using road-based transport links is potentially much greater.
- Data & research-led:  
Investment should not be based on short-term political considerations, but data-based and research-led economic analysis. It has been the experience in the past that government has often undermined any hopes of achieving sustainable development, with a prescriptive and opportunistic investment policy. Investment should be supported by the facts and government should remain in the background as facilitator, providing infrastructural and service support.

## 6.6 Small & Medium Scale Enterprises Equity Investment Scheme (SMEEIS)

SMEEIS was approved by the Bankers Committee in December 1999 as a voluntary scheme to support the Federal Government's policy to promote SMEs for 'rapid industrialization, sustainable economic growth, poverty alleviation and employment generation' (Bankers Committee, April 2006).

Under the scheme banks set aside 10% of their Profit After Tax (PAT), to be invested in qualifying SMEs, either as a loan or as an equity investment (share-holding). Current funds set aside stand at over N37.4Bn (SMEEIS, July 2007).

Businesses eligible to apply for funding must have a maximum asset base of less than N1.5Bn and be duly registered with the Corporate Affairs Commission (CAC). Trading/Merchandising and Financial Services businesses are excluded and interest repayments have been capped to a maximum of 9%.

As at December 2006 there were 248 projects being sponsored valued at over N17Bn, across the country – but not a single one in Adamawa State (SMEEIS Performance Report 31<sup>st</sup> December 2006).

The table below gives an analysis of the sectoral distribution of SMEEIS funds (July 2007).

	<b>SECTOR</b>	<b>No. of Projects</b>	<b>Funding Value</b>
A.	<b>Real Sector/Enterprise:</b> Agro-allied, Manufacturing, Construction, Solid Minerals	174	N9.4Bn
B.	<b>Service Sector:</b> ICT, Education, Services, Tourism, Others	105	N9.5Bn
C.	<b>Micro Enterprises Sector</b>	0	0
	<b>TOTALS:</b>	279	N18.9Bn

Source: CBN, Sectoral Distribution of SMEEIS Investments July 2007

**SADR List of Acronyms and Abbreviations**

ABC	Adamawa State Broadcasting Corporation
ADP	Agricultural Development Programme
ADPIC	Adamawa State Property & Investment Company
ADSG	Adamawa State Government
ADSUBEB	Adamawa State Universal Basic Education Board
ASUPDA	Adamawa State Urban Planning & Development Authority
ATV	Adamawa State Television
Eco	Ecological
EMIS	Environmental Management Information System
EPZ	Export Processing Zone
Exco	Executive Committee
FGN	Federal Government of Nigeria
FUTY	Federal University of Technology Yola
GDI	Geo-Spatial Data Infrastructure
GDP	Gross Domestic Product
GHY	Government House Yola
GIS	Geographic Information System
GPS	Global Positioning Satellite
GRA	Government Residential Area
GSM	Mobile Phone
HR	Human Resources
HSMB	Hospital Services Management Board
ICT	Information and Communications Technology
IGOV	Integrated Governance Framework
IGR	Internally Generated Revenue
JAC	State and Local Government Joint account
LGA	Local Government Authority
M&E	Monitoring and Evaluation
MLC	Max Lock Centre
MLCN	Max Lock Consultancy Nigeria Limited
MS Office	Microsoft Office
NEEDS	National Economic Empowerment and Development Strategy
NEPA	National electric Power Company (Now PHCN)
NPC	National Population Commission/National Planning Commission
PHC	Primary Health Care
PHCN	Power Holding Company of Nigeria (Formerly NEPA)
PPP	Public, Private Partnership
PPPP	Public, Private, People Partnership
PPSMB	Post-Primary Schools Management Board
SADR	Sustainable Adamawa Development Report
SEEDS	State Economic Empowerment and Development Strategy
SL	Sustainable Livelihoods
SME	Small and Medium Scale Enterprises
SMEDAN	Small & Medium Scale Enterprise Development Agency in Nigeria
SMEEIS	Small and Medium Scale Enterprises Equity Investment Scheme
SUF	Slum Upgrading Facility
U/C	Under Construction
UBE	Universal Basic Education
UN Habitat/UNCHS	United Nations Conference on Human Settlement
WB	World Bank

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- Leeuw P.N., Lesslie A. and Tuley P. (1972) Land Resource Study No. 9 The land resources of North East Nigeria Volume 5. Appendices and tables.

# The Max Lock Centre



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H.E. Alh Murtala Nyako  
Executive Governor Adamawa State  
Government House, Jimeta-Yola  
Adamawa State  
NIGERIA

June 4<sup>th</sup> 2007

Your Excellency,

## **Re: Proposed “Sustainable Adamawa” Development Report**

Further to your kind initial, and very positive, audience on 03.06.07, we are pleased to submit this proposal for your consideration, for the production of the “Sustainable Adamawa” Development Report (SADR).

Your 13-point Programme for transforming Adamawa covers; i. economy, ii. education, iii. health, iv. water, v. transportation, vi. agriculture, vii. environment, viii. good governance, ix. civil service, x. investment, xi. women, xii. youths and xiii. partnership with the Federal Government. It is hinged on the attainment of the UN Millennium Development Goals and the sustainable development of Adamawa State.

We are confident that Max Lock Consultancy Nigeria Ltd with the full resource backing of the Max Lock Centre at the University of Westminster is very well placed to undertake consultancy, planning and technical advice, which will help you translate your programme into a workable implementation framework. Our locally and internationally experienced personnel in planning, development consultancy, community engagement and training stands us in very good stead.

### **1.0 Background**

1.1 Given the long break since our production of the Greater Yola Planning Report in 1976, the first task will be to re-acquaint ourselves with the current context, update our records and collect up to date data on the State Capital and the State. Whilst we remain committed to appropriate and community-driven development planning, today MLC enjoys the benefit of both a wide-ranging international profile and the latest planning and information technologies.

1.2 The objective behind the SADR will be to capture an accurate “snapshot” of Adamawa State and present a plausible planning and development framework, for the sustainable achievement of your Administration’s goals.

## **2.0 SADR Scope**

The SADR is a preliminary study, to capture the current development potentials of the State, in the light of your government’s programme. The report will identify further areas for detailed planning and will be a pre-cursor for the development of the following;

- 2.1 Regional Master Plan for Adamawa State
- 2.2 Local Master Plans for each of the 21 LGA’s in the State
- 2.3 Urban Development Plans for specified key urban centres

## **3.0 Methodology**

3.1 The method of approach MLCN will adopt will be to traverse Adamawa, visiting the key towns and economic sub-regions, in order to map the State’s economic infrastructure, service delivery mechanisms and manpower capacity. This preliminary survey will then be analysed in the context of the current and potential opportunities available. Specifically SADR will seek to;

- 3.1.1 Identify entry points for the upgrading and expansion of critical economic and social infrastructure.
- 3.1.2 Visually assess up to six main towns and urban centres and recommend possible areas for community and government intervention to achieve sustainable physical development.
- 3.1.3 Overview the investment and development potentials of the 21 Local Government Areas of Adamawa State.
- 3.1.4 Assess the training and capacity building needs of staff at both the State and LG level in the relevant agencies required to eventually implement SADR.
- 3.1.5 Propose a Strategy for implementation of SADR and recommend the optimal approach for the achievement of the MDGs.

## **4.0 SADR Outputs**

4.1 The major output of the SADR will be the Report itself, covering all the above areas as well as any additional areas, which may become apparent when we are in the field.

4.2 Maps of Adamawa State and details of the six main urban centres, showing the State’s economic assets, including;

- 4.2.1 Natural Assets – water resources, agriculture, minerals
- 4.2.2 Physical Assets – roads, drainage and communications infrastructure
- 4.2.3 Economic Assets – industries, markets, major business centres
- 4.2.4 Human Assets – housing provision, education and healthcare institutions
- 4.2.5 Socio-political Assets – locations of all agencies, administrative boundaries and governance structures.

## 5.0 SADR Timeline

The Final Report will be submitted 8 weeks after full mobilisation. The programme of work will be as follows;

5.1	Preliminary research and deployment	-	2 weeks
5.2	Fieldwork and data collection	-	4 weeks
5.3	Analysis and Final report writing	-	2 weeks

## 6.0 SADR Cost

The total cost for the SADR will be N7.5m (Seven million, five hundred thousand Naira only). We will request additionally that Adamawa State make provision of accommodation and local transportation for the MLCN Team.

## 7.0 Conclusion

Your Excellency, we trust that this proposal meets with your approval and hereby kindly request the following;

- 7.1 A letter of appointment to Max Lock Consultancy Nigeria Ltd (MLCN) as Consultants to undertake the production of the Sustainable Adamawa Report (SADR), as outlined above,
- 7.2 Approve the payment of 70% advanced payment to MLCN (N5,250,000 –Five million, two hundred and fifty thousand Naira only), to facilitate the mobilization of the Team locally and from London , payment of which, together with provision of the under-listed, will mark the project take-off.
- 7.3 Assign a suitably senior official to act as “Project Champion” and the Formal Liaison between the project and government
- 7.4 Allocate adequate accommodation for the 10-member Project Team’s living and working for the project duration
- 7.5 Provide 2 project vehicles, one of which should be 4-wheel drive, the other preferably a station-wagon, both either new or at least in excellent working order

I look forward to hearing from you for further discussion and implementation of this proposal.

With best wishes,



Dr Mike Theis (Director: Max Lock Centre)

*Steering Group*

Prof. Alan Jago  
Prof. Peter Newman  
Bill Erickson  
Dr. Michael Theis  
Leonard Coulthard



AGREEMENT FOR PRODUCTION OF "SUSTAINABLE ADAMAWA" DEVELOPMENT REPORT

This Agreement is made this 16<sup>th</sup> day of August 2007  
Between The Permanent Secretary Cabinet Affairs, Secretary to the State Government Office Government House of Adamawa State Nigeria, acting for and on behalf of the Government of Adamawa State of Nigeria herein after called, "the Client" (which expression shall include its successors in title, agents and assigned of the first part) and Max Lock Consultancy Nigeria Limited whose registered office address is at 17 Fadan Kaje Street, Narayi, Kaduna herein after called "the Consultant" (which expression shall include its successors in title, agents, assignees and personal representatives of the second part).

**WHEREAS**

1. The Government desire to have an excellent, workable "Sustainable Adamawa" Report described in the proposal submitted by the Consultants and attached as schedule 1 to this agreement.
2. The Consultant is in a position to duly prepare the report according to their specification as described in the proposal submitted by the Consultants and attached as schedule 1 to this agreement.

**IT IS HEREBY AGREED AS FOLLOWS:**

1. **Obligations of the Consultant.**  
The Consultant undertakes to deliver the report which is the subject of this Agreement precisely according to the specifications as fully described in the schedule 1.
2. The report under this Agreement shall be delivered to the Client eight (8) weeks after the signing of this agreement being the 15<sup>th</sup> day of October, 2007.
3. **PRESENTATION**
  - a. The Consultants shall present its Draft Final Report to the Client on week 7 of this contractual agreement for the Client's observations and comments.
  - b. The Consultant shall present 10 hard copies of the Final Report to the client on week 8 after signing the contract, after receipt of comments from the Client.
  - c. The Client may request the Consultant to produce additional copies of the Final report for an agreed fee.
  - d. This Agreement terminates on the presentation of the Final Report.
4. **Obligations of the Client.**  
**PAYMENT:**
  - a. The Client undertakes to pay the Consultant the total sum of contract sum.
  - b. An advance payment of \_\_\_\_\_ at the signing of contract covered by a Unity Bank Plc Bond, being 70%. Payment, shall be made at the Cabinet Affairs Government House, Yola. Balance of \_\_\_\_\_ to be paid after final draft at the same point.

**TERMINATION OF CONTRACT**

- 5. The termination of this contract can be either by the Client, if the Consultant, without due consultation with the Client, fails to deliver within eight (8) weeks, OR by the Consultant, if the Client fails to fulfill its full obligations.


**GENERAL:**

The schedule to this Agreement shall be read as and form part of this Agreement.


IN WITNESS whereof the representatives of the first party and the second party hereto have hereunder set their hands the day and year first above written.


SIGNED BY THE ABOVE NAMED FOR AND ON BEHALF OF THE GOVERNMENT OF ADAMAWA STATE OF NIGERIA IN THE PRESENCE OF:-

SIGNATURE:   
NAME: Elhadji Al. Kanga  
RANK, OCCUPATION AND ADDRESS:   
SIGNED AT: KANGA, STATE OF ADAMAWA

SIGNATURE:   
NAME: Hassan  
RANK & ADDRESS:   
SIGNED AT: KANGA, STATE OF ADAMAWA

SIGNATURE FOR AND ON BEHALF OF MAX LOCK CONSULTANCY (1) NIGERIA LIMITED IN THE PRESENCE OF:-

SIGNATURE:   
NAME: Michael  
RANK, OCCUPATION AND ADDRESS:   
SIGNED AT: Max Lock Consultancy Nigeria Ltd.

SIGNATURE:   
NAME: SAMUEL ADENIRAN  
RANK, OCCUPATION AND ADDRESS:   
DIRECTOR  
MAX LOCK CONSULTANCY  
NIGERIA LIMITED  
YOLA.

## Appendix D: MDG Goals, Targets and Indicators

*Effective 8 September 2003*

<b>Millennium Development Goals (MDGs)</b>	
<b>Goals and Targets (from the Millennium Declaration)</b>	<b>Indicators for monitoring progress</b>
<b>Goal 1: Eradicate extreme poverty and hunger</b>	
Target 1: Halve, between 1990 and 2015, the proportion of people whose income is less than one dollar a day	1. Proportion of population below \$1 (PPP) per day <sup>a</sup> 2. Poverty gap ratio [incidence x depth of poverty] 3. Share of poorest quintile in national consumption
Target 2: Halve, between 1990 and 2015, the proportion of people who suffer from hunger	4. Prevalence of underweight children under-five years of age 5. Proportion of population below minimum level of dietary energy consumption
<b>Goal 2: Achieve universal primary education</b>	
Target 3: Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling	6. Net enrolment ratio in primary education 7. Proportion of pupils starting grade 1 who reach grade 5 <sup>b</sup> 8. Literacy rate of 15-24 year-olds
<b>Goal 3: Promote gender equality and empower women</b>	
Target 4: Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015	9. Ratios of girls to boys in primary, secondary and tertiary education 10. Ratio of literate women to men, 15-24 years old 11. Share of women in wage employment in the non-agricultural sector 12. Proportion of seats held by women in national parliament
<b>Goal 4: Reduce child mortality</b>	
Target 5: Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate	13. Under-five mortality rate 14. Infant mortality rate 15. Proportion of 1 year-old children immunised against measles
<b>Goal 5: Improve maternal health</b>	
Target 6: Reduce by three-quarters, between 1990 and 2015, the maternal mortality ratio	16. Maternal mortality ratio 17. Proportion of births attended by skilled health personnel
<b>Goal 6: Combat HIV/AIDS, malaria and other diseases</b>	
Target 7: Have halted by 2015 and begun to reverse the spread of HIV/AIDS	18. HIV prevalence among pregnant women aged 15-24 years 19. Condom use rate of the contraceptive prevalence rate <sup>c</sup> 19a. Condom use at last high-risk sex 19b. Percentage of population aged 15-24 years with comprehensive correct knowledge of HIV/AIDS <sup>d</sup> 19c. Contraceptive prevalence rate 20. Ratio of school attendance of orphans to school attendance of non-orphans aged 10-14 years
Target 8: Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases	21. Prevalence and death rates associated with malaria 22. Proportion of population in malaria-risk areas using effective malaria prevention and treatment measures <sup>e</sup> 23. Prevalence and death rates associated with tuberculosis 24. Proportion of tuberculosis cases detected and cured under directly observed treatment short course DOTS (Internationally recommended TB control strategy)
<b>Goal 7: Ensure environmental sustainability</b>	
Target 9: Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources	25. Proportion of land area covered by forest 26. Ratio of area protected to maintain biological diversity to surface area 27. Energy use (kg oil equivalent) per \$1 GDP (PPP) 28. Carbon dioxide emissions per capita and consumption of ozone-depleting CFCs (ODP tons) 29. Proportion of population using solid fuels
Target 10: Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation	30. Proportion of population with sustainable access to an improved water source, urban and rural 31. Proportion of population with access to improved sanitation, urban and rural
Target 11: By 2020, to have achieved a significant improvement in the lives of at least 100 million slum dwellers	32. Proportion of households with access to secure tenure

<b>Goal 8: Develop a global partnership for development</b>	
Target 12: Develop further an open, rule-based, predictable, non-discriminatory trading and financial system	<i>Some of the indicators listed below are monitored separately for the least developed countries (LDCs), Africa, landlocked developing countries and small island developing States.</i>
Includes a commitment to good governance, development and poverty reduction – both nationally and internationally	<u>Official development assistance (ODA)</u>
Target 13: Address the special needs of the least developed countries	33. Net ODA, total and to the least developed countries, as percentage of OECD/DAC donors' gross national income
Includes: tariff and quota free access for the least developed countries' exports; enhanced programme of debt relief for heavily indebted poor countries (HIPC) and cancellation of official bilateral debt; and more generous ODA for countries committed to poverty reduction	34. Proportion of total bilateral, sector-allocable ODA of OECD/DAC donors to basic social services (basic education, primary health care, nutrition, safe water and sanitation)
Target 14: Address the special needs of landlocked developing countries and small island developing States (through the Programme of Action for the Sustainable Development of Small Island Developing States and the outcome of the twenty-second special session of the General Assembly)	35. Proportion of bilateral official development assistance of OECD/DAC donors that is untied
Target 15: Deal comprehensively with the debt problems of developing countries through national and international measures in order to make debt sustainable in the long term	36. ODA received in landlocked developing countries as a proportion of their gross national incomes
	37. ODA received in small island developing States as a proportion of their gross national incomes
	<u>Market access</u>
	38. Proportion of total developed country imports (by value and excluding arms) from developing countries and least developed countries, admitted free of duty
	39. Average tariffs imposed by developed countries on agricultural products and textiles and clothing from developing countries
	40. Agricultural support estimate for OECD countries as a percentage of their gross domestic product
	41. Proportion of ODA provided to help build trade capacity
	<u>Debt sustainability</u>
	42. Total number of countries that have reached their HIPC decision points and number that have reached their HIPC completion points (cumulative)
	43. Debt relief committed under HIPC Initiative
	44. Debt service as a percentage of exports of goods and services
Target 16: In cooperation with developing countries, develop and implement strategies for decent and productive work for youth	45. Unemployment rate of young people aged 15-24 years, each sex and total <sup>f</sup>
Target 17: In cooperation with pharmaceutical companies, provide access to affordable essential drugs in developing countries	46. Proportion of population with access to affordable essential drugs on a sustainable basis
Target 18: In cooperation with the private sector, make available the benefits of new technologies, especially information and communications	47. Telephone lines and cellular subscribers per 100 population
	48. Personal computers in use per 100 population
	Internet users per 100 population

The Millennium Development Goals and targets come from the Millennium Declaration, signed by 189 countries, including 147 heads of State and Government, in September 2000 (<http://www.un.org/millennium/declaration/ares552e.htm>). The goals and targets are interrelated and should be seen as a whole. They represent a partnership between the developed countries and the developing countries "to create an environment – at the national and global levels alike – which is conducive to development and the elimination of poverty".

Note: Goals, targets and indicators effective 8 September 2003.

- <sup>a</sup> For monitoring country poverty trends, indicators based on national poverty lines should be used, where available.
- <sup>b</sup> An alternative indicator under development is "primary completion rate".
- <sup>c</sup> Amongst contraceptive methods, only condoms are effective in preventing HIV transmission. Since the condom use rate is only measured among women in union, it is supplemented by an indicator on condom use in high-risk situations (indicator 19a) and an indicator on HIV/AIDS knowledge (indicator 19b). Indicator 19c (contraceptive prevalence rate) is also useful in tracking progress in other health, gender and poverty goals.
- <sup>d</sup> This indicator is defined as the percentage of population aged 15-24 who correctly identify the two major ways of preventing the sexual transmission of HIV (using condoms and limiting sex to one faithful, uninfected partner), who reject the two most common local misconceptions about HIV transmission, and who know that a healthy-looking person can transmit HIV. However, since there are currently not a sufficient number of surveys to be able to calculate the indicator as defined above, UNICEF, in collaboration with UNAIDS and WHO, produced two proxy indicators that represent two components of the actual indicator. They are the following: a) percentage of women and men 15-24 who know that a person can protect herself/himself from HIV infection by "consistent use of condom"; b) percentage of women and men 15-24 who know a healthy-looking person can transmit HIV.
- <sup>e</sup> Prevention to be measured by the percentage of children under 5 sleeping under insecticide-treated bednets; treatment to be measured by percentage of children under 5 who are appropriately treated.
- <sup>f</sup> An improved measure of the target for future years is under development by the International Labour Organization.

## Appendix E: Sustainable Development Concept

### The Consolidation of the Sustainable Development Concept

In 1972 the United Nations Conference on the Human Environment in Stockholm raised concerns about the damaging impacts of human activity on the natural environment, and a growing recognition of the need to balance economic and social progress, particularly in the developing world, concern for the environment and the stewardship of natural resources.<sup>1</sup>

In 1987, a World Commission on Environment and Development published its report, 'Our Common Future'. The Brundtland Commission (as it became known as after its chairman the former Norwegian Prime Minister Dr Gro Harlem Brundtland) defined sustainable development as ***'development that meets the needs of the present without compromising the ability of future generations to meet their own needs.'***

In 1991, the World Conservation Union (IUCN), the United Nations Environment Programme (UNEP) and the World Wide Fund For Nature (WWF) published 'Caring for the Earth: A Strategy for Sustainable Living' It defined sustainable development as 'improving the quality of human life while living within the carrying capacity of supporting ecosystems.' This definition complements that of the Brundtland Commission by relating human need to the need to conserve the ecosystems that support it.

In 1992 the report of the Brundtland Commission formed the basis of an international policy framework that came out of the UN Conference on Environment and Development, held in Rio de Janeiro (Agenda 21).

The political declarations that issued from the Rio Earth Summit and the later Johannesburg Summit recognized that sustainable development was a balance of three dimensions:

- Environmental Protection
- Economic Growth
- Social Development

In 2000, the Millennium Declaration of the United Nations set out eight Millennium Development Goals (see Annex 2), which encompassed the international community's vision of human development and environmental sustainability as set out in the sequence of UN conferences in the 1990s.

The 2002 Johannesburg Summit – the 10-year review of the Rio Declaration – broadened the vision of Sustainable Development and focused on the practical implementation of Agenda 21 and the MDGs. Its Political Declaration was that sustainable development is built on economic development, social development and environmental protection - which must be established 'at local, national, regional and global levels'.

The Johannesburg Declaration recognises the complexity and interrelationship of critical issues such as poverty, wasteful consumption, environmental degradation, urban decay, population growth, gender inequality, health, conflict, and the violation of human rights.

## Adamawa State Government of Nigeria



# A Proposal, Action Plan and Scope of Services

for a Development Strategy in Adamawa State  
using satellite imagery, mapping and establishing a geo-spatial data  
infrastructure (GDI) for State-wide and Local Government Area planning  
purposes incorporating a training and capacity building programme

November 2007

### Max Lock Consultancy Nigeria Limited

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The Max Lock  
Centre

## Proposed Action Plan for Immediate Implementation

Following the presentation on November 27<sup>th</sup> 2007 of the Sustainable Adamawa Development Report, we are pleased to submit an Action Plan, Proposal and Scope of Services for the preparation of detailed structure plans for the State Capital Greater Yola and all other Local Government Headquarters Towns.

We would see these actions being implemented within the first three months following an appointment letter and the signing of an Agreement between the Adamawa State Government and the Max Lock Consultancy Nigeria Limited based on this three year proposal and Scope of Services.

1. The purchase of satellite imagery for Greater Yola, Mubi and all other Local Government Headquarters Towns.
2. Map organisation and preparation at relevant scales from imagery.
3. Establishment of an office in Yola for Max Lock Consultancy Nigeria Limited, which would house, process and verify the emerging GDI database
4. Purchase and installation of initial IT equipment for the GDI
5. Preparation of training manuals, courses and development of staff in the use of IT equipment, data collection and verification.
6. Collation of cadastral information on major land allocations in the Greater Yola area, its interpretation, plotting on to the image mapping and recommendations.
7. Based on the image mapping, the carrying out initial field surveys and activities stated in the Scope of Services.
8. Identifying priorities and recommending planning and other immediate actions to be taken in conjunction with the relevant State Ministries, Parastatals and Local Government Departments.
9. Submission of property valuation feasibility report as a basis for internally generated revenue
10. Feasibility study on State-wide Bus Service

## **Introduction**

The project involves reviewing existing master plans for the State Capital Yola/Jimeta and Mubi and the other eighteen Local Government Headquarters towns throughout Adamawa State and establishing a state-wide geographically based information system for use by the State Government and other related government agencies in order to achieve planned and sustainable regional, urban and community development.

Our 'Sustainable Adamawa' Development Report identified in broad terms the existing, proposed and new investments in the State and the priority needed to achieve the Government's commitment to sustainable development.

However, almost every financial investment has an implication on the use of land. These uses – whether public or private sector generated – must respect existing development and be appropriately sited within an integrated planning framework if they are to be effective in the delivery of services and economic opportunity to communities.

Accurate 'ground truth' knowledge of the land, what is on it, how it is used, how well it is maintained, its value and contribution to the urban structure, its ownership and potential and demand for change, how it is serviced and its topography are all vital elements to achieving this purpose.

## **Aim of the Project**

The aim of this project will be to produce a state wide ICT-based Geo-spatial Data Infrastructure (GDI) to achieve improved and more efficient community based governance and the delivery of appropriate development through all branches of government, parastatals and the private sector, singly or in partnership. However, it will need to be introduced in a staged manner if it is to be sustainable.

Yola is the State Capital with an established Government House and State Secretariat so it would be logical to set up a data processing unit in one or the other and train a working team to run it. This will need to be replicated in the future in the major zones of the State and all Local Government Headquarters towns as the staff and skills become available.

Any unit will need to be simple and robust to suit the local physical, infrastructural service and climatic constraints and capable of being run, kept up to date and be maintained by locally recruited and government staff trained during the process of this project. The procurement costs of hard and software have been included in the Scope of Work and Financial Proposal as broad budget sums.

The actual requirements for these will relate to existing human and physical resources that will be assessed during the course of the project. Following an audit and discussions, a specification can be drawn up, a budget cost and procurement programme produced.

## **Purchase of IT Equipment**

IT equipment should be purchased on a staged basis when the physical infrastructure to house and service it and the staff who will be trained to use it are identified and in place. In this time of rapidly reducing prices and changing specification procuring such equipment before there is the trained staff to use and maintain it fully would not be an economic use of scarce resources. The same



principle applies to the purchase of high resolution satellite imagery. An indicative budget cost for an initial basic field data and satellite map based GDI processing unit is included. A brief summary is attached to this proposal showing the extent, quality and cost of satellite imagery for The State Capital and each LGA HQ town in the State.

### **Programme of Work**

This staged programme of work will require carrying out a mapping and development planning exercise initially for the State Capital Yola/Jimeta, installing a GDI processing unit in the State Capital and training the staff there in the use of the software and hardware, and updating their field surveying, data recording and collection and planning skills accordingly.

Based on the practical experience of this exercise and the implementation programme for the initial GDI and planning programme, it will be extended to zonal and LGA HQ offices in the rest of the State. Procurement of IT hardware and software must be directly related to the training programmes and their outputs so that what is purchased can be fully used and maintained.

Whatever information is put in place it should be usable by different parts of the whole system of government, which suggests some type of networking or sharing of information, which must be related to a realistic development of existing physical, financial and human resources. Without this fundamental system being in place valuable information tends to sit in different places and remain uncoordinated and as such the left hand does not know what the right hand is doing.

The GDI will require

1. an inventory of existing and planned facilities based on location, condition and potential
2. information and communications technology (ICT) i.e. computers, printers, scanner and storage peripherals, cable or wireless networks and data receivers
3. power and energy resources i.e. generation and distribution and saving in relation to the efficient servicing of the buildings and systems outlined in 1 and 2 above.

A computer based information system linking Government House to the Ministries and the Departments within them will require human resource development and a professional and technical training and development programme that will ensure the sustainability of the information system.

Such a programme will guarantee the long-term supply of staff that is adequately trained in the full range of appropriate skills including planning, mapping, surveying and data management, basic software operation and ICT maintenance and GDI. Initially, a short-term facility may be set up in the State Capital for the provision of basic training and serve as a research centre or back up resource to the State Government.

### **Preliminary Urban Development Studies (pages 5 – 6)**

A preliminary assessment of each Ministry and the LGA HQs along with a brief outline of the uses and value of satellite imagery as a base for planning and building

a geo-spatial Infrastructure is being made in the current 'Adamawa Sustainable' Development Report stage due to be delivered to Government in early October. A list and assessment of quality and cost of satellite imagery for all 21 LGA HQ towns in Adamawa State is given here.

**Scope of Services** (pages 7 – 9)

In the following sections this outline programme of activities is set out as a Scope of Services for a State wide regional plan, the State Capital Yola/Jimeta and Mubi where detailed Master Plans were drawn up by Max Lock Group in the 1976 Reports and for the other eighteen LGA HQ towns.

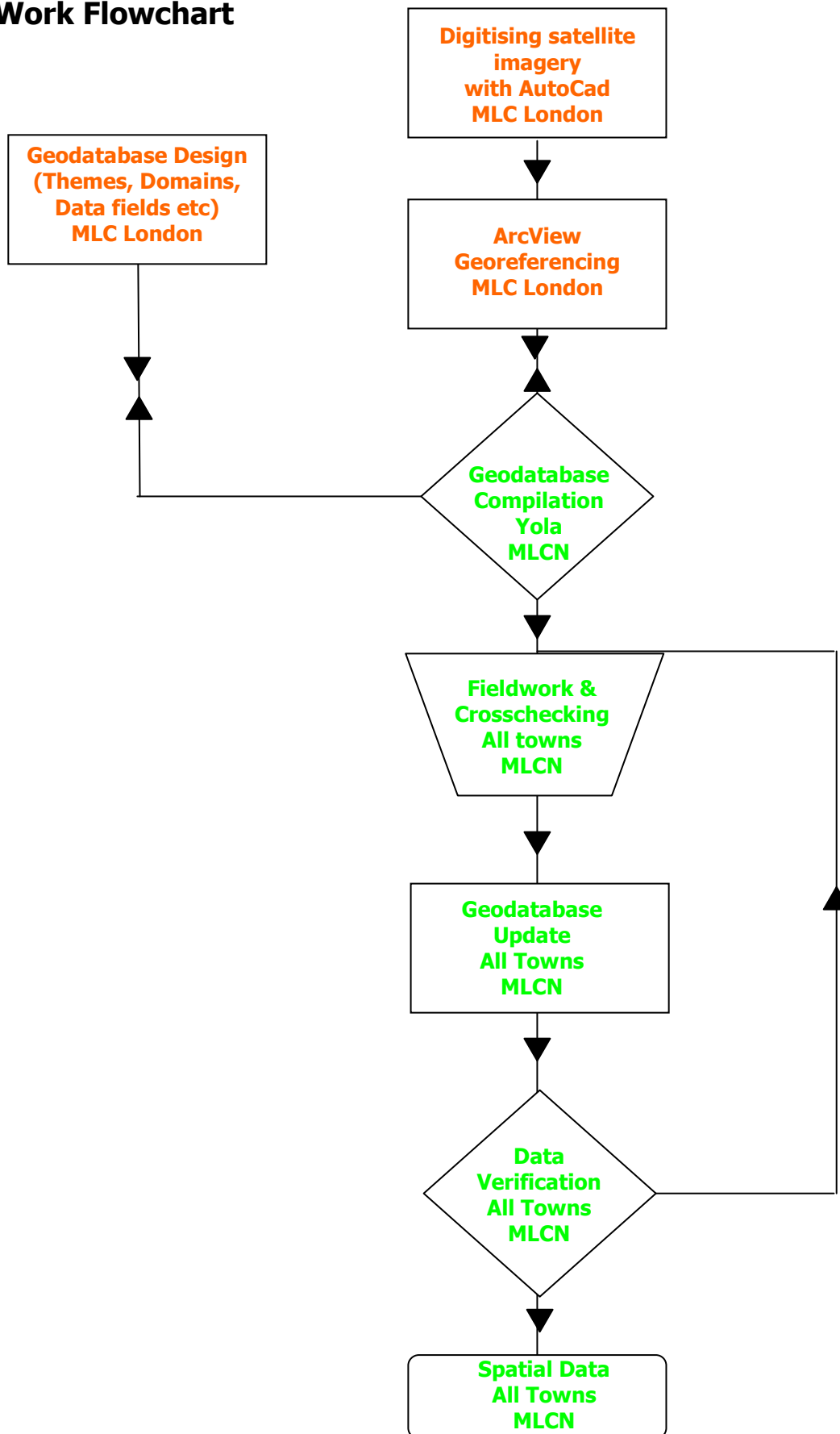
**Personnel and CVs** (pages 20 – 38)

A Staff List with summary CVs is given for the major contributors expected to be closely involved in the execution of this proposal. It is expected that there will be further local recruitment as the needs and skills required are established.

**Financial Proposal** (pages FP1-FP4)

A cost estimate of these activities for each town and the State is given in the Financial Proposal section along with summary tables of costs and reimbursables.

# Geo-spatial Data Infrastructure Work Flowchart



# Preliminary Urban Development Studies

A preliminary assessment has been made of available satellite imagery and the necessary procurement of high definition imagery for each of the twenty-one Local Government Headquarters Towns in Adamawa State. In the case of Greater Yola and Mubi the assessment has been more detailed by comparing the Master Plans produced in the original Max Lock Group Nigeria development planning reports of 1976 and the freely available low resolution satellite imagery for 2004 – 2006.

These are given for each town in the attached volume Satellite Image Data. A summary table is given on page 7.

Broad areas around the traditional core areas of the towns have been identified as having been developed since any available traditional mapping and the 1976 MLGN Reports of 1976 for Greater Yola and Mubi. Further areas are revealed by the available satellite images to be under the influence of new urban development. .

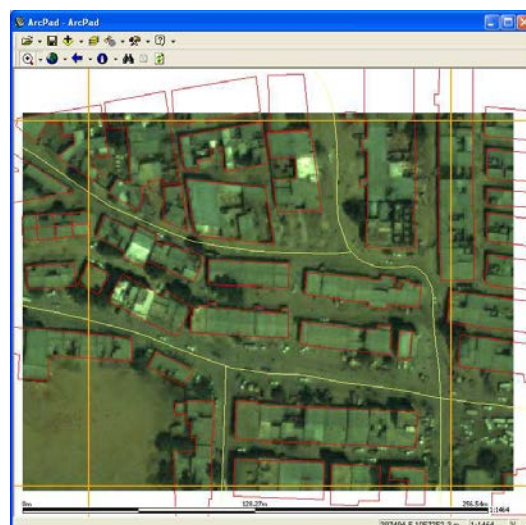
These further areas have determined the extent of high resolution imagery to be purchased for each town to form the basis of the data base, subsequent field survey and verification and specialist data mapping.



An example is given here of the kind of detail that can be identified from a freely downloadable image (This one is of a part of Song, Adamawa State). The individual market stalls of the central market can be seen clearly as can the tarred main Federal Trunk Road (A13). Buildings and where boundary walls or fences exist are defined. The quality and detail from the high resolution images we will be specifying for purchase for each of the towns will be of this quality and capable of being enlarged to 1:1250 scale.

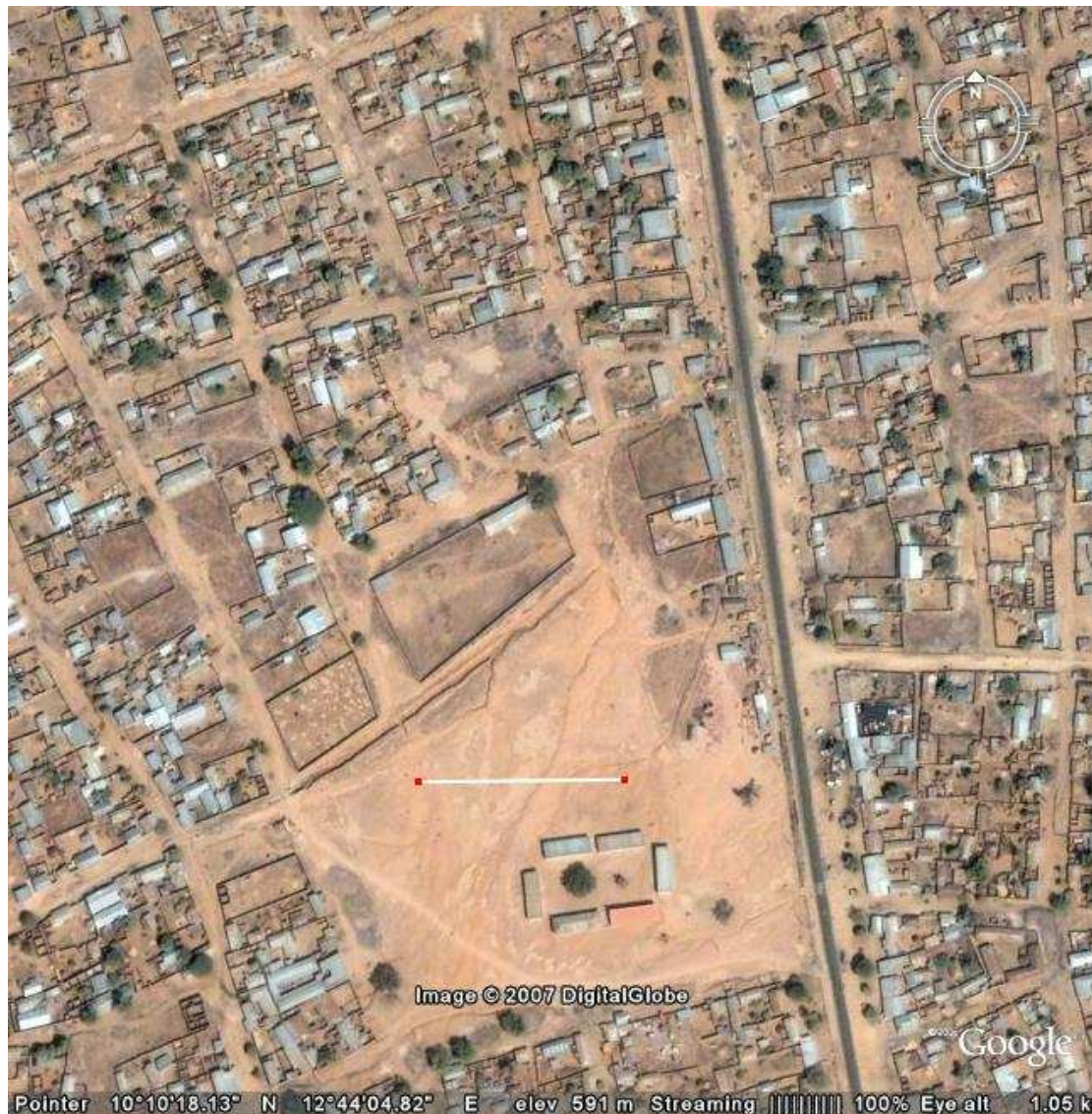
*An example of high resolution satellite image*

On the right is an example of a satellite image as seen on a hand held PDA being used in a similar field survey to that proposed for Adamawa State. This example comes from the work undertaken in Somali land for UNHabitat in 2004 – 05 by our technical advisor on satellite survey, Mr. Ian Corker. The work of demarcating buildings, plots, street blocks and the underlying 100 metre grid can be seen. This is the first process in the spatial definition and mapping of properties for which much more detailed information can be collected and analysed for use in planning, revenue raising and the management of community assets.



*High resolution image on a personal digital assistant (PDA)*

Detailed high resolution images will be required covering the whole of the area defined around each town from this preliminary assessment as being under the influence of urban development and showing each individual plot. An example showing part of the centre of Gombi at 1:2500 scale is given below. High resolution images of this quality will be obtained, analysed, mapped and verified on the ground by specially trained local teams at the outset of the project. This will give an up-to-date map base for plotting all survey data and from which proper planning can start.



The total estimated cost to give all the towns and the State Capital up to date satellite imagery from which detailed mapping, planning and cadastral plotting and a full GDI database can be based is in the region of \$13197.00. This sum would not even buy traditional line mapping for only one of the smallest of the LGA HQ towns and this would be out of date the moment it was printed, whereas the satellite imagery can be constantly up-dated at minimal cost.

### Adamawa State: Satellite Images: Estimated Costs

	<b>LGA</b>	<b>HQ Town</b>	<b>Estimated Image Cost (\$US)</b>
1.	Demsa	Demsa	1408.00
2.	Fufore	Fufore	1408.00
3.	Ganye	Ganye	425.00
4.	Girei	Girei	425.00
5.	Gombi	Gombi	00.00
6.	Guyuk	Guyuk	425.00
7.	Hong	Hong	425.00
8.	Jada	Jada	1408.00
9.	Lamurde	Lamurde	1408.00
10.	Maiha	Maiha	425.00
11.	Mubi North	Mubi	510.00
12.	Mubi South	Mubi	425.00
13.	Madagali	Gulak	425.00
14.	Michika	Michika	425.00
15.	Mayo Belwa	Mayo Belwa	425.00
16.	Numan	Numan	425.00
17.	Shelleng	Shelleng	425.00
18.	Song	Song	00.00
19.	Toungo	Toungo	425.00
20.	Yola North	Jimeta	1190.00
21.	Yola South	Yola	765.00
	<b>Total</b>		<b>13197.00</b>

# Master Plan Revision and GDI for Adamawa State

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using satellite imagery, mapping and establishing a geo-spatial data  
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# Adamawa State Scope of Services

*Directors:*

Samuel Adenekan (Nigerian)  
Sa'adu Dahiru (Nigerian)  
Pat-Natson Owolabi (Nigerian)  
Michael Theis (British)  
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## Scope of Services

### **Adamawa Statewide policies and activities**

#### **Inception Phase (months 1 – 6)**

1. Build on and confirm data collected during the SADR preliminary fact finding, consultation and briefing meetings with all State and Federal Ministries and other relevant government agencies and parastatals and the twenty-one LGAs. Clarify the programme and its purpose with all key stakeholders.
2. Discuss and detail the accepted SADR recommendations for early implementation plans.
3. Review and propose further detailed studies from the general sub-regional natural resources / hydro-geological studies produced by MLCN for the 'Sustainable Adamawa' Development Report. Consider the procurement of specialized satellite imagery for more detailed soils, land and minerals capability studies.
4. Examine and implement the procurement of a cost effective and appropriate direct high speed Internet link for immediate use, which can be built on for the networking proposals outlined in the following Planning Stage.
5. Purchase, customise and test image analysis software for map making and preliminary data storage, retrieval and analysis for setting up initial GDI framework for Adamawa State urban areas and purchase of high resolution satellite imagery to cover the areas confirmed for each LGA.
6. Review current practical field experience in satellite based property registration, valuation banding systems and their data collection, recording and analysis methods.
7. Prepare a framework for monitoring, audit and evaluation of all development activities and train staff to build this into a continuous process.
8. Prepare and submit Inception Report to Adamawa State Government and feedback.

#### **Planning Phase (months 6 – 24)**

9. Collect any further data on Adamawa State for entry into developing GDI database and analysis and for preliminary discussion of the planning issues.
10. Review of development control, land and property registration procedures and administration.
11. Draw up Adamawa State specification for the networked geographically based information system (hardware and software, including GIS, CAD and graphics/mapping software for Town Planning, cadastral and land administration purposes) including specification for user manuals.
12. Draw up a GDI networked framework for a State-wide inventory of government assets, their condition, cost, staffing and relevance.
13. Draw up an Adamawa State training specification for staff within the Ministries and Urban and Rural Development Authorities. Identify short and longer-term priorities and research training provision on the basis of a network of



institutions and on a modular basis, including on-site training of operating staff and overseas training courses for senior staff who will eventually become the trainers of other intermediate and senior staff. This ensures sustainable capacity building.

14. Prepare Adamawa State training support documentation for the immediate training programme.
15. Draw up a phased Adamawa State procurement plan for IT equipment and buildings related to outputs from training programmes and extension of work to urban areas outside the State Capital.
16. Draw up a list of potential suppliers/contractors and commission competitive tenders for building infrastructure and for information and communications technology (computers etc). Evaluate tenders for value for money and cost effectiveness on the basis of capital costs and long term maintenance and support costs.
17. Set up a training and research department within the Adamawa State Government (possibly within Government House).
18. Draw up a draft Adamawa State Regional Planning map and policies with statutory arrangements for review, implementation and public participation.
19. Prepare and submit planning stage report and recommendations to Adamawa State Government.

#### **Implementation Phase (months 24 – 36)**

20. Finalise the design of recording methodology of land occupation and classification for planning purposes and registration and banding system for revenue generation and collection purposes.
21. Review planning set-up and training programme.
22. Prepare Final Report to Adamawa State Government and proposals for continued role of the consultants in future, monitoring, audit, evaluation, review and training.

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# Greater Yola Scope of Services

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The Max Lock  
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## Scope of Services

# The State Capital Greater Yola

### Inception Phase (months 1-3)

1. Preliminary mapping exercise to be carried out by Max Lock Centre London on the basis of freely-available Landsat imagery and previous master plan in the MLC archive to provide base maps at scales of 1:100,000 to 1:20,000 for Greater Yola structure planning purposes.
2. Build up a more detailed analysis of staff skills and suitability for training from the preliminary inventory of Local and State Government human resources for potential project training programmes.
3. Preliminary inventory of Local and State Government physical assets for accommodating staff and equipment.
4. Draw up an administrative structure to integrate the four main functions of Planning – Administrative Authority, Technical Servicing, Plan Making and Development Control.
5. Establish short-term/immediate field work teams and training, which should include State and Local government staff employed in posts associated with planning, IT and land administration so that they can learn the context and use of fieldwork data and verification.
6. Field verification and map development exercise to be carried out in and on Greater Yola with the aim of producing base maps at a range of scales at 1:2000; 1:5000; 1:10,000; 1:20,000; 1:50,000; 1:100,000 for basic planning purposes and to provide a street map of Greater Yola and environs.
7. Review existing Greater Yola Master Plan and Reports of Surveys.
8. Map existing infrastructure, land use and morphology of Greater Yola. Map development constraints and opportunities.
9. Prepare outline feasibility estimates for development options.
10. Prepare draft strategic development framework for Greater Yola.
11. Prepare and submit Inception Report to Adamawa State Government and feedback.

### Planning Phase (months 4 – 12)

12. Consult with all key stakeholders at Federal, State and Local government levels, including other service providers (Adamawa Urban Development Authority, NEPA, Water and Sewage Boards, Public Works Department, NITEL and all commercial mobile phone operators) and representatives of key, recognised interest groups in Greater Yola.
13. Investigate and facilitate action plans for Community Asset Management
14. Preliminary structure planning exercise for Greater Yola to establish areas for detailed consideration for action planning, thematic planning and cadastral plotting.
15. Review draft strategic development framework for Greater Yola.

16. Carry out any further detailed field verification of maps and remotely-sensed imagery in Greater Yola.
17. Up date town hydro-geological studies and verify map data in Greater Yola
18. Co-ordinate with service providers (NEPA, Water and Sewage Boards, Public Works Department, NITEL and all commercial mobile phone operators) to ensure accurate plotting of their networks.
19. Investigate sites for GIS workstation installation and associated power, networking and support infrastructure requirements. Draw up a specification for any new or upgrading to existing buildings required, including new or improved fixtures, fittings and office equipment.
20. Prepare written master plan report for Greater Yola and conduct ongoing review with key stakeholders.
21. Finalise master plan and strategic development framework for Greater Yola and street map for Greater Yola.
22. Prepare and submit planning stage report and recommendations to Adamawa State Government.

#### **Implementation Phase (months (13 – 36)**

23. Supervise any infrastructure or other related improvements to existing buildings or construct and fit out new buildings as required.
24. Purchase, installation and testing of required number of computers, software, hardware, including printers and other peripherals, UPS and other fixtures and equipment necessary for networking, mapping and information gathering and analysis within the entire Ministry and Development Authority.
25. Carry out and supervise – training the trainers – initial long-term training programmes to end of project period.
26. Finalise and disseminate associated manuals and training documentation.
27. Carry out detailed cadastral plotting of C of Os and applications for land registration as a separate layer on the new urban GIS mapping.
28. Implement detailed Community Asset Management plans for action in Greater Yola with local planners, including consultation with and participation by key stakeholders.
29. Prepare Final Report to Adamawa State Government and proposals for continued role of the consultants in future town planning, monitoring, audit, evaluation and training.

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# Mubi Scope of Services

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Pat-Natson Owolabi (Nigerian)  
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## Scope of Services

### Mubi

#### Inception Phase (months 1-3)

1. Preliminary mapping exercise to be carried out by Max Lock Centre London on the basis of freely-available Landsat imagery and previous master plan in the MLC archive to provide base maps at scales of 1:100,000 to 1:20,000 for Mubi structure planning purposes.
2. Build up a more detailed analysis from the preliminary inventory of Local and State Government human resources carried out for the SADR of staff skills and suitability for potential project training programmes.
3. Preliminary inventory of Local and State Government physical assets for accommodating staff and equipment.
4. Draw up an administrative structure to integrate the four main functions of Planning – Administrative Authority, Technical Servicing, Plan Making and Development Control.
5. Establish short-term/immediate field work teams and training, which should include State and local government staff employed in posts associated with planning, IT and land administration so that they can learn the context and use of fieldwork data and verification.
6. Field verification and map development exercise to be carried out in and on Mubi with the aim of producing base maps at a range of scales at 1:2000; 1:5000; 1:10,000; 1:20,000; 1:50,000; 1:100,000 for basic planning purposes and to provide a street map of Mubi and environs.
7. Review existing Mubi Master Plan and Reports of Surveys.
8. Map existing infrastructure, land use and morphology of Mubi. Map development constraints and opportunities.
9. Prepare outline feasibility estimates for development options.
10. Prepare draft strategic development framework for Mubi.
11. Prepare and submit Inception Report to Adamawa State Government and feedback.

#### Planning Phase (months 4 – 12)

12. Consult with all key stakeholders at Federal, State and Local government levels, including other service providers (Adamawa Urban Development Authority, NEPA, Water and Sewage Boards, Public Works Department, NITEL and all commercial mobile phone operators) and representatives of key, recognised interest groups in Mubi.
13. Investigate and facilitate action plans for Community Asset Management
14. Preliminary structure planning exercise for Mubi to establish areas for detailed consideration for action planning, thematic planning and cadastral plotting.
15. Review draft strategic development framework for Mubi.

16. Carry out any further detailed field verification of maps and remotely-sensed imagery in Mubi.
17. Up date town hydro-geological studies and verify map data in Mubi
18. Co-ordinate with service providers (NEPA, Water and Sewage Boards, Public Works Department, NITEL and all commercial mobile phone operators) to ensure accurate plotting of their networks.
19. Investigate sites for GDI workstation installation and associated power, networking and support infrastructure requirements. Draw up a specification for any new or upgrading to existing buildings required, including new or improved fixtures, fittings and office equipment.
20. Prepare written master plan report for Mubi and conduct ongoing review with key stakeholders.
21. Finalise master plan and strategic development framework for Mubi and street map for Mubi.
22. Prepare and submit planning stage report and recommendations to Adamawa State Government.

#### **Implementation Phase (months 13 - 36)**

23. Supervise any infrastructure or other related improvements to existing buildings or construct and fit out new buildings as required.
24. Purchase, installation and testing of required number of computers, software, hardware, including printers and other peripherals, UPS and other fixtures and equipment necessary for networking, mapping and information gathering and analysis within the entire Local Government Areas and Development Authority.
25. Carry out and supervise – training the trainers – initial long-term training programmes to end of project period.
26. Finalise and disseminate associated manuals and training documentation.
27. Carry out detailed cadastral plotting of C of Os and applications for land registration as a separate layer on the new urban GDI mapping.
28. Implement detailed Community Asset Management plans for action in Mubi with local planners, including consultation with and participation by key stakeholders.
29. Prepare Final Report to Adamawa State Government and proposals for continued role of the consultants in future town planning, monitoring, audit, evaluation and training.

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# Local Government Headquarters Towns Scope of Services

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## Scope of Services

# Local Government Area Headquarters Towns

### Inception Phase (months 1-3)

1. Preliminary mapping exercise to be carried out by Max Lock Centre London on the basis of freely-available Landsat imagery to provide base maps at scales of 1:100,000 to 1:20,000 for Local Government Headquarters Towns structure planning purposes.
2. Build up a more detailed analysis from the preliminary inventory of Local and State Government human resources carried out for the SADR of staff skills and suitability for potential project training programmes.
3. Preliminary inventory of Local and State Government physical assets for accommodating staff and equipment.
4. Draw up an administrative structure to integrate the four main functions of Planning – Administrative Authority, Technical Servicing, Plan Making and Development Control.
5. Establish short-term/immediate field work teams and training, which should include State and local government staff employed in posts associated with planning, IT and land administration so that they can learn the context and use of fieldwork data and verification.
6. Field verification and map development exercise to be carried out in and on Local Government Headquarters Towns with the aim of producing base maps at a range of scales at 1:2000; 1:5000; 1:10,000; 1:20,000; 1:50,000; 1:100,000 for basic planning purposes and to provide a street map of Local Government Headquarters Towns and environs.
7. Map existing infrastructure, land use and morphology of Local Government Headquarters Towns. Map development constraints and opportunities.
8. Prepare outline feasibility estimates for development options.
9. Prepare draft strategic development framework for Local Government Headquarters Towns.
10. Prepare and submit Inception Report to Adamawa State Government and feedback.

### Planning Phase (months 4 – 12)

11. Consult with all key stakeholders at Federal, State and Local government levels, including other service providers (Adamawa Urban Development Authority, NEPA, Water and Sewage Boards, Public Works Department, NITEL and all commercial mobile phone operators) and representatives of key, recognised interest groups in Local Government Headquarters Towns.
12. Investigate and facilitate action plans for Community Asset Management
13. Preliminary structure planning exercise for Local Government Headquarters Towns to establish areas for detailed consideration for action planning, thematic planning and cadastral plotting.

14. Review draft strategic development framework for Local Government Headquarters Towns.
15. Carry out any further detailed field verification of maps and remotely-sensed imagery in Local Government Headquarters Towns.
16. Up date town hydro-geological studies and verify map data in Local Government Headquarters Towns
17. Co-ordinate with service providers (NEPA, Water and Sewage Boards, Public Works Department, NITEL and all commercial mobile phone operators) to ensure accurate plotting of their networks.
18. Investigate sites for GDI workstation installation and associated power, networking and support infrastructure requirements. Draw up a specification for any new or upgrading to existing buildings required, including new or improved fixtures, fittings and office equipment.
19. Prepare written master plan report for Local Government Headquarters Towns and conduct ongoing review with key stakeholders.
20. Finalise master plan and strategic development framework for Local Government Headquarters Towns and street map for Local Government Headquarters Towns.
21. Prepare and submit planning stage report and recommendations to Adamawa State Government.

#### **Implementation Phase (months 13 - 36)**

22. Supervise any infrastructure or other related improvements to existing buildings or construct and fit out new buildings as required.
23. Purchase, installation and testing of required number of computers, software, hardware, including printers and other peripherals, UPS and other fixtures and equipment necessary for networking, mapping and information gathering and analysis within the entire Local Government Areas and Development Authority.
24. Carry out and supervise – training the trainers – initial long-term training programmes to end of project period.
25. Finalise and disseminate associated manuals and training documentation.
26. Carry out detailed cadastral plotting of C of Os and applications for land registration as a separate layer on the new urban GDI mapping.
27. Implement detailed Community Asset Management plans for action in Local Government Headquarters Towns with local planners, including consultation with and participation by key stakeholders.
28. Prepare Final Report to Adamawa State Government and proposals for continued role of the consultants in future town planning, monitoring, audit, evaluation and training.

## **Planning, Consultancy, Training, Data Collection and Management**

### **Max Lock Consultancy Nigeria Ltd. (MLCN)**

Max Lock (1909-1988) founded the Max Lock Group in the 1940s as a cross disciplinary network of professionals in the fields of planning, sociology, geography, transport, economics, industry, housing, education, recreation, architecture and urban design to promote and practice what he always called the 'art' of town planning, which is only truly successful when the 'planned' were fully-involved with the 'planners' in their 'planning'.

In 1965 Max Lock brought these planning techniques to Nigeria when he was commissioned to produce a 'Master Plan' for Kaduna which, when published, became a 'textbook' on how to collect, manage and interpret the mass of social, spatial and economic data needed for proper development planning in a country where the existing data base across all fields was thin on the ground and mapping was years out of date.

He and his team realised from the beginning that techniques need to be designed and local teams trained to collect fresh data from the field.

The Max Lock Consultancy Ltd. Nigeria has been developing and renewing this tradition through its research and consultancy activities and its network of like-minded professionals. Updating the approach pioneered by Max Lock in Nigeria to the digital age, Max Lock Consultancy Nigeria Ltd. with backing from Max Lock Centre at University of Westminster, provides research, consultancy and training in the latest computer technology such as Geo-Spatial Data Infrastructure (GDI) which can be tailored to individual authorities' needs and specifications.

### **The Max Lock Centre (MLC), London**

The Max Lock Centre is a multi-disciplinary research, knowledge transfer and consultancy organisation in the School of Architecture and Built Environment at the University of Westminster, London with associated organisations in India and Nigeria. The Centre aims to promote multi-disciplinary grass-roots planning, sustainable community development and planning by people. It offers research, policy advice, technical consultancy and training in international development. It is currently engaged in projects in Asia, Africa and Latin America.

## **'Sustainable Adamawa' Development Report - Final**

'Sustainable Adamawa' Development Report (SADR) provides an overview of the current physical and economic status of Adamawa State, which will provide the new Administration with a baseline from which to project its vision for the development of the State. This brief but focused 'snapshot' is intended to outline a basis for the Government to 'plan the planning' of a viable and sustainable development model, suggest entry points for interventions and flag up pertinent constraints and opportunities, which could potentially 'make or break' the achievement of the Administration's 13-Point Programme.

### **Feedback and contact**

Any comments and enquiries on this publication are welcome. Please contact:

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